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✓ ANNUAL REPORT 2001

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JAN 11 2002
University of Massachusetts
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EXECUTIVE SUMMARY

I. INTRODUCTION

Massachusetts is in the midst of an educational revolution that is changing educational practices throughout the state. Learning standards for all children are higher than ever before. Expectations of teachers, administrators, parents, the state, and the Legislature have risen to new heights. Schools are on a more equal footing than in the past, and the stakes for everyone are high.

The Massachusetts Education Reform Act (MERA), passed in 1993, is a far-reaching statute designed to provide equity in the educational opportunities afforded to all K-12 students in the Commonwealth and to improve student achievement by dealing systemically with all of education's complexities. Rather than the piecemeal approaches of prior reform efforts, this is a major attempt to change all aspects of K-12 education, from what happens in the classroom to how schools are financed – all with a keen focus on student learning as the bottom line.

II. THE MASSACHUSETTS EDUCATION REFORM REVIEW COMMISSION

The Massachusetts Education Reform Review Commission (MERRC, or “the Commission”) was established by the Legislature in 1993 to oversee implementation of the Education Reform Act. Its members are committed to provide objective, policy-relevant research and analysis to legislators, policymakers, school leaders, and practitioners.

III. CHARGE TO THE RESEARCH TEAM

This first Annual Report of the Commission provides an overview of the implementation of MERA, and its impact to date on reforming Massachusetts schools and improving student achievement. A research team was commissioned by MERRC and charged with assisting in the conceptualization, design, and production of an annual report on the state's education reform activities by addressing four main objectives:

1. Identifying the key components of education reform and establishing a set of success indicators for tracking them.
2. Auditing implementation of the Massachusetts Education Reform Act of 1993.
3. Identifying relevant research and research needs.
4. Highlighting significant policy and practice challenges related to MERA.

IV. METHODOLOGY

MERRC and the research team identified a series of indicators in the areas of standards and assessment, accountability, district capacity, teacher capacity, and finance. The team collected data on these indicators to determine progress in each of the five categories. Thirty schools were selected to visit. Because a key intention of MERA was to equalize educational opportunities for all students, and low achievement has historically been highly correlated with high poverty, the team chose mostly schools from those whose poverty rates were 20% or above, and made predictions of performance based on poverty rates. A few schools not fitting this profile were included to ensure that all perspectives were represented in this report. The team then selected two groups of schools to visit, one performing above prediction and one performing below prediction.

Members of the research team visited these schools to try to understand what factors were associated with school success and with low school performance. Team members interviewed superintendents, principals, teachers, and parents on site. Other stakeholders including members of professional associations, DOE, and legislators were interviewed either in person or by phone. Research was conducted through a review of articles, position papers, reform initiatives in other states, and studies from journals, universities, government agencies, and non-profit organizations. More than 200 teachers, 90 superintendents, 100 principals, and 100 parents, many of them school council or PTO leaders, were interviewed.

V. MAJOR FINDINGS

What's Working

MERA has performed a quiet revolution in Massachusetts schools. For the first time, in this state known for local control, there is agreement on the part of the Governor, legislators, school administrators, teachers, parents, business and community members that there be educational standards statewide which all students, regardless of background or wealth, are expected to meet. Learning standards for Massachusetts students, among the most rigorous in the country, have been adopted, announced, and translated into curriculum frameworks. Furthermore, schools are being held accountable for what students know and are able to do at the end of each grade and when they graduate from high school. Accountability for student learning has shifted the focus in schools away from what teachers are teaching to what students are learning.

Many schools have added instructional time to the school day and many have added opportunities for teachers to meet, plan, and develop more effective learning strategies with other staff. Many low-achieving students now have access to an extended day and/or year of tutoring, enrichment, and extra practice on basic skills.

Principals have been removed from the collective bargaining process and the law allows them a much stronger role in hiring and evaluating teaching faculty and other staff, with the school committee role shifted to policy and resource concerns.

There is a clear message that schools are expected to reach all children; and this goal has been facilitated by changes in the school funding formula that have provided greater equity between rich and poor communities. State funds for local schools have been increased by more than one billion dollars a year, targeted to raise spending in cities and towns with low property wealth and a high percentage of students in poverty. Large increases in state education spending have also allowed all cities and towns to fund their schools at least at foundation level – a remarkable achievement.

Eight years into educational reform, we have many models of schools across the socioeconomic spectrum that have changed their practices sufficiently to have a strong impact on student achievement. These examples of success can be shared and replicated throughout the state

What's Not Working

While there has been progress in the implementation of MERA, there is still much work to be done. Student learning is not close to where it should be, nor is there an adequate accountability system. There are still major shortages in certain teaching areas, and a great number of teachers have not received the training or support they need to accomplish the task of educating all students to a higher level of achievement. There is no system in place for holding school districts or individual schools to performance standards, and effective teaching and administration standards are in flux. There are controversies between the Board of Education and DOE, on the one hand, and the educational community on the other, regarding the use of MCAS as the state's sole determinant of student achievement or district improvement, especially when graduation is at stake.

While the original intent of MERA was to create mechanisms to support and assess improvement in student learning and district capacity, there has developed instead a distrustful climate where educators feel unsupported and harshly judged. Educators feel they are not treated as partners in the reform process as they once were and, as a result, morale is down. Teachers as a whole have been publicly criticized and their competency questioned. The Board of Education and DOE have often been accused of not listening to the concerns of the field, and not being attuned to the realities of public education.

A significant number of school administrators do not have the help they need to create the systemic change required to move their schools and districts to higher levels of student achievement. The jobs of superintendents and principals are more complex than ever. Their role as instructional leaders is greatly enlarged, while their management responsibilities have not decreased at all. In addition, they are expected to be change agents, which is a new role for many. The state does not have a strategy to work with them

These factors are threatening the very fabric of education reform.

VI. SITE OBSERVATIONS/INTERVIEWS IN THIRTY SCHOOLS

Schools Performing above Expectations

Why do certain schools with a high proportion of lower income children do better than predicted?

Features characteristic of schools performing above expectations included:

- Strong leadership, especially from the principal but in some cases from others who exert instructional leadership
- High expectations of all students
- Common planning time for teachers
- A total system approach
- Longer blocks of time dedicated to specific instructional objectives
- Use of assessment data to guide curriculum decisions
- District teachers participate in aligning the curriculum to state standards based on student achievement data
- Use of high-quality, research-based curriculum materials
- New state and foundation dollars for specialists and smaller class size
- Professional development undertaken simultaneously by many teachers in the school or in the system that is based on a vision of how to achieve school or system change.
- School contracts that allow for professional development as described above and a stronger evaluation system
- Parents informed about standards and the work of the school
- A longer day for those students who need it

Schools Performing below Expectation

Why do some schools with high enrollment of low income students perform below expectation? What impact has MERA or specifically the publication of MCAS scores had on low-achieving schools, their leaders and faculties and parents?

Schools in which students did more poorly than predicted shared many of the following characteristics:

- No strong vision for change from superintendent/principal or lead teachers
- A delay in implementation of education reform, stemming from a “this, too, will pass” attitude
- Teachers don’t believe their children can learn and do not set high expectations for them
- Few efforts to enable teachers of the same grade or same subject to take the same professional development courses, to meet to discuss needed curriculum revisions, or to share effective lesson plans
- Uninformed school councils
- Lack of cohesion among staff members
- Lack of cooperation from the local union
- Control exerted by the superintendent over hiring and firing
- Cumbersome legal procedures protecting low performing and uncooperative teachers

- High level of student turnover within a school year
- Difficulty getting high school students in for after school tutoring
- Difficulty getting parents involved in the schools for teacher conferences

VII. RECOMMENDATIONS

With large numbers of students at risk of not graduating, and controversy around MCAS as an appropriate and sole measure of success, there is a serious risk of losing sight of the improvements MERA has brought to student achievement. There is also a risk of losing support for MCAS.

DOE and the Board of Education need to work with educators in the field and the public to build a credible and effective system of accountability for MA students. The following recommendations are designed to move schools from practices that are resulting in unacceptable levels of achievement to practices that have shown promise and results and to ameliorate the obstacles to success found in even the most successful schools.

Standards and Assessment

- The curriculum frameworks should not be changed again for five years, once the history/social studies revisions are made. The DOE, with feedback from the field, must determine if the frameworks, in their entirety, are manageable for students and teachers.
- The achievement gap between Hispanic and African-American students and white students is of major concern. DOE and districts must focus reform efforts on reducing it. Research on effective approaches and practices must also be conducted.
- Allow multiple indicators of student proficiency, not one single snapshot such as the MCAS exam. SAT IIs, Advanced Placement tests, and locally developed portfolios and performance assessments approved by the DOE are possible indicators to include.
- A reasonable compromise regarding the debate over whether or not it is too soon for high stakes testing would be to withhold any decisions until the spring of 2002. 2001 MCAS scores will have been published, and high school students who did not pass will have had an opportunity for remediation and will have taken a retest. Results of this retake will be available. If these scores continue to be poor it will be time to give serious consideration to a variety of approaches while preserving the principles, the standards, and the test. It will also still be early enough to make decisions regarding the first group of students for whom high stakes apply.
- The impact of MCAS on drop-outs needs to be closely monitored by the DOE.
- Develop a 2-tiered diploma system. Students should not be admitted to publicly-funded 4-year colleges and universities unless they pass MCAS. This will keep attention focused on improved student results. Students who fail the MCAS but

otherwise meet local standards for graduation should be awarded local diplomas, which will qualify them for community colleges and give them the opportunity to seek Pell grant funding. Failure to do this risks withholding federal financial help to students who may successfully use community colleges as pathways to successful futures. The Legislature should support a program for students who have failed MCAS twice similar to the dual enrollment program for higher achieving students.

Accountability

- Make the following changes to the school improvement rating system:
 - Determine district improvement using multiple factors. Measures including SAT, AP exams, and other nationally normed standardized test scores, college acceptance, employment, attendance, drop-out rates, and course offerings are possible criteria to include. Process indicators that are believed to lead to improved student achievement such as high quality professional development opportunities for teachers, certified teachers, teacher attrition and class size might also be factored in.
 - The state should adopt a test data tracking system that compares the same cohort of students in a school from year to year. As proposed in the education bills now going through Congress, DOE should track individual students and judge schools on the annual academic growth of those who stay in the school.
 - Only use MCAS scores of students who have been in the district for at least two years. Schools should be allowed to report scores on newcomers separately. Schools who have experienced a boundary change should display a large asterisk.
 - Provide comparisons of district and school performance within categories that differentiate between different types of communities to provide schools and districts with useful data, and more readily identify models to which systems can relate.
- Appropriate funds for state reviews of district implementation of MERA, and implement the district accountability system developed by the DOE as soon as possible.

District Capacity

- DOE must work more in partnership with the field, offering support and resources while limiting its requirements of school districts so as not to overwhelm and alienate them. Districts whose students are performing well or making good progress should be able to work relatively independently of DOE if they prefer. DOE should then concentrate its attention on districts (and schools) that are having trouble raising student performance, and should develop a strong group of outside experts (primarily retired but well-respected superintendents, principals, and teachers) to work with

needy districts. The DOE's effort to create such a capability was lost in the controversy over where accountability would be done.

- Arbitrators are failing to respond to the new dismissal criteria in MERA and instead continue to decide cases on the “just cause” standard. The Legislature should strengthen the legal language to ensure that arbitrators make decisions for dismissal based on the criteria of the best interest of students and on state and district teacher performance standards. If necessary, DOE should challenge key findings in court to uphold the clear intention of MERA to allow districts to dismiss teachers for poor teaching performance.
- Districts must provide the principal with adequate assistance, including both assistants who can take over building management functions and support personnel who can help with paperwork. This will enable principals to supervise and evaluate teachers, oversee curriculum work and school-based professional development, respond to DOE mandates, and perform all their usual functions.
- Undertake an evaluation of the effectiveness of professional development. The research should focus on determining conditions under which professional development is most effective in raising student achievement and the identification of ways to evaluate professional development programs.
- The Legislature should mandate and fund a longer school year (200 days) for students.
- Teachers should be expected to work a significantly longer school day than students, and/or a longer school year, to provide critically needed additional teacher time for professional development, collaborative planning, and other demands of standards-based teaching.

Teacher Capacity

- The state should pay a supplemental salary amount in disciplines like math, science, and special education where teachers are hard to find, as recommended by the Governor. This would allow districts themselves to continue to pay equal salaries while allowing total compensation to respond to the pressures of supply and demand. School districts must be actively encouraged to create career ladders for teachers.
- Teaching competency should be assessed using multiple sources of data including observations, student work, teacher conferences, etc. A diagnostic teacher test should only be used when an administrator has reason to question subject knowledge.
- School districts must be actively encouraged to create career ladders for teachers. These teachers could receive 11 month contracts to train teachers and develop curriculum and training materials for the district. Salaries could be differentiated on the basis of skills and performance.

- Policy makers should consider using Praxis I, Praxis II, and Praxis III. These are nationally validated teacher examinations which include an academic skills test to test academic skills (Praxis I), a graduate level test that assesses subject mastery and pedagogical skills including curriculum planning, instructional design, and assessing student learning (Praxis II) and classroom performance for beginning teachers (Praxis III).

Finance

- The foundation budget should be raised by 5 to 7% over the next 4 years as an interim increase. At that time, a future foundation budget review commission should consider whether further increases are required. This review commission should look at spending (in relation to foundation) by the more frugal districts that show reasonably high test results. Massachusetts should base its funding for wealthier districts who do not receive foundation aid on a formula that sets aid to any given town as a percentage of its foundation budget. High-poverty cities and towns that would receive more money under the current foundation budget formulation would continue to receive foundation aid. Cities and towns that already receive more aid than can be justified under either approach should be held harmless on a per-pupil basis.
- The primary purpose of state aid should be to make up the difference between the foundation budget and some reasonable local tax effort. Keep the required local tax rate lower than some ceiling (e.g., twice the state average tax rate) and higher than some reasonable floor (e.g., 80% of the state average tax rate), as proposed by the Governor and the House.
- Place a cap on the required tax effort to help towns struggling with large debt payments for school construction. This cap should apply to the sum of excess debt and required contribution. A town with large debt payments would then have its operating contribution reduced by the excess debt amount, with state aid filling in the gap.
- Eliminate overburden aid to Athol, Lawrence, and Holyoke and require the minimum tax effort required of all other cities. Use these funds to increase spending levels in high poverty districts.
- Efforts to eliminate overburden aid have been opposed because some of this aid goes to cities and towns with relatively high tax burdens. One way to deal with this problem is to put in place a floor on the local tax effort, similar to the ceiling proposed by Governor Cellucci. Any city or town with a required local tax effort less than, e.g., 60% of the state average (the average is \$8; 60% of this would be a tax effort of \$5) would be required to add to the increase normally required an additional local contribution toward school equal to 1% of its equalized or adjusted valuation. This extra amount would not be subject to the normal Proposition 2½ levy limit. The increases would continue until the city or town reached the tax floor. Proposition 2½ was meant to keep local officials from imposing large tax increases without public approval; it was not intended to place the burden of paying the total cost of any local school on all other citizens in Massachusetts.

I. INTRODUCTION

The educational revolution in Massachusetts marches forward, with higher standards for students, teachers, and parents than ever before. Are we succeeding? Have we reached our goals? What do we need to do differently? This report addresses the current status of education reform in Massachusetts with an eye towards policy recommendations and suggestions for further research.

The Massachusetts Education Reform Act (MERA), passed in 1993, was designed to provide equity in the educational opportunities for all K-12 MA public school students. This comprehensive piece of legislation tackles most of the issues that have stood in the way of educational excellence. This includes standards and assessment, accountability, district capacity, teacher capacity and finance. Massachusetts is, indeed, clearly on its way to better schools, higher student achievement. But that is not to say the road is smooth. As would be the case for any complex task, some of aspects of MERA are on course; some are not. Some need to be rethought. This report analyzes the major components of MERA through a variety of indicators, and makes recommendations designed to both improve implementation of MERA and affect policy decisions.

Standards and Assessment

MERA calls for the identification of a common core of learning for all students. Learning standards are to be articulated through curriculum frameworks, which outline what is important for students to know and be able to do at various grade levels and upon graduating from a MA public school. Furthermore, the state is to develop a way to assess student achievement of these standards at different grade levels.

Accountability

MERA calls for the Board of Education, through the DOE, to be responsible for developing a set of procedures for the implementation of MERA. This is to include a system of student, school and district accountability through which improvement will be measured. Schools and districts are expected to show continuous improvement as measured by student achievement. Improvement in student achievement is to be measured through a comprehensive assessment system to be developed by DOE. Districts are also to be accountable for ensuring that teachers and administrators meet state guidelines for teacher and administrator standards, and that mandated changes in school governance are implemented.

District Capacity

Provisions under district capacity are intended to change school governance to enable the superintendent to serve as CEO, with final authority for hiring and firing personnel. Site-based management is to bring the base of power closer to the delivery of services -- i.e., the school. School councils and school-business partnerships are intended to increase the parent and community engagement in the schools.

Teacher Capacity

To develop teacher capacity, MERA calls for state guidelines for district standards for teacher and administrator effectiveness. In recognition of the fact that educators are now to be held more accountable for student achievement and need to develop new skills to meet the higher demands being placed on them, money was allocated for on-going professional development. Participation in professional development is further emphasized through provisions requiring teacher and administrator recertification.

Finance

The primary financial goals of the 1993 education reform law are to bring spending in all school districts up to the foundation budget spending goal and to reduce the extent of local property tax disparities associated with achieving this goal.

This Annual Report will report on progress to date, as measured by the indicators of success, on these aspects of educational reform. DOE capacity, vocational education, alternative educational programs, charter schools, and teacher and administrator supply and demand will only be alluded to, insofar as others are studying or have studied them.

II. METHODOLOGY

For each of the above categories, a series of indicators was identified by MERRC and the research team (Appendix A). This report uses many of these indicators to determine the effectiveness to date of MERA in reforming MA schools and improving student achievement across the Commonwealth. Not all of the indicators could be used because either data was not available, or was insufficient. (See Appendix B for a listing of indicators.)

Data was gathered through:

- 1) site visits to 28 schools (Appendix C) which involved focus groups with teachers and parents, and interviews with principals and superintendents;
- 2) interviews with many key stakeholders; and
- 3) review of education documents and research.

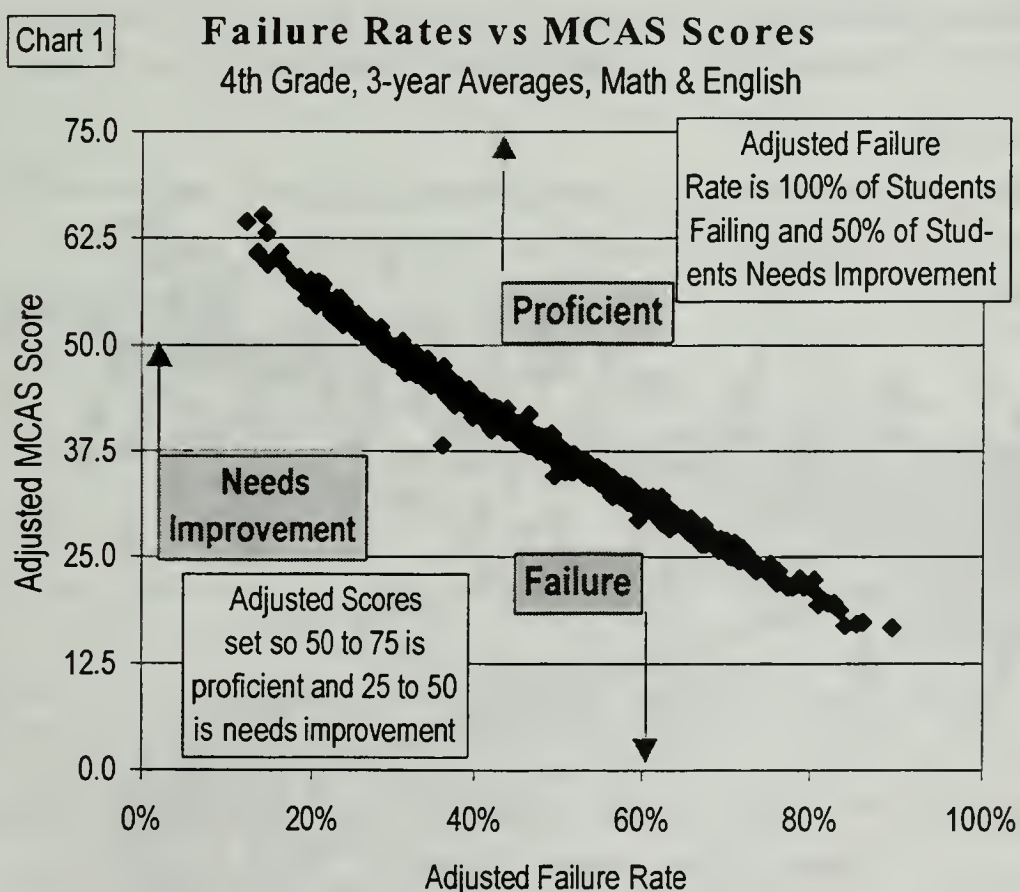
Through site visits and other meetings, more than 200 teachers, 90 superintendents, 100 principals, 20 curriculum directors and 100 parents, many of them school council or PTO leaders, were interviewed.

School Visits

Selecting Schools to Visit

In selecting schools, the team wanted to identify schools that appear to be particularly effective and some that are not so effective, and then try to understand the key differences between the two groups. But rather than just picking those schools with the highest and lowest MCAS scores, or those whose MCAS scores had improved the most or least over three years as determined by the DOE, the team wanted to focus primarily on schools with higher rates of poverty.¹ It was these districts that MERA was particularly designed to help. The team looked at the relationship between poverty and test scores at the individual school level for each of the three grades tested. As expected, there was a very tight connection. Following is the explanation of the approach.

Summarizing MCAS Results. The team defined its own “adjusted failure rate” as a measure of performance. This measure has advantages over using average test scores, but as a practical matter, there is an almost one-to-one relationship between the two measures (see Chart 1 below). The assumption made here is that a student in the “failure” category is a failure; a student in “needs improvement” is considered half a failure. Students who fail to take the test are not included. Thus, a school where 200 out of 225 students took the test, and where 20 failed and 60 were in “needs improvement,” would count as having an adjusted failure rate of 25%.



¹ A few schools that did not fit this profile were also selected so that a broader perspective would be reflected in this report.

The MCAS scores are normalized so that an average score of 25 is the lowest possible passing score. In Chart 1, each elementary school is shown as one dot. As can be seen in the chart, a school with an average score of 25 will have an adjusted failure rate of about 70%. A school with an average score at the very low end of the proficient range (50) will have an adjusted failure rate of 28%.

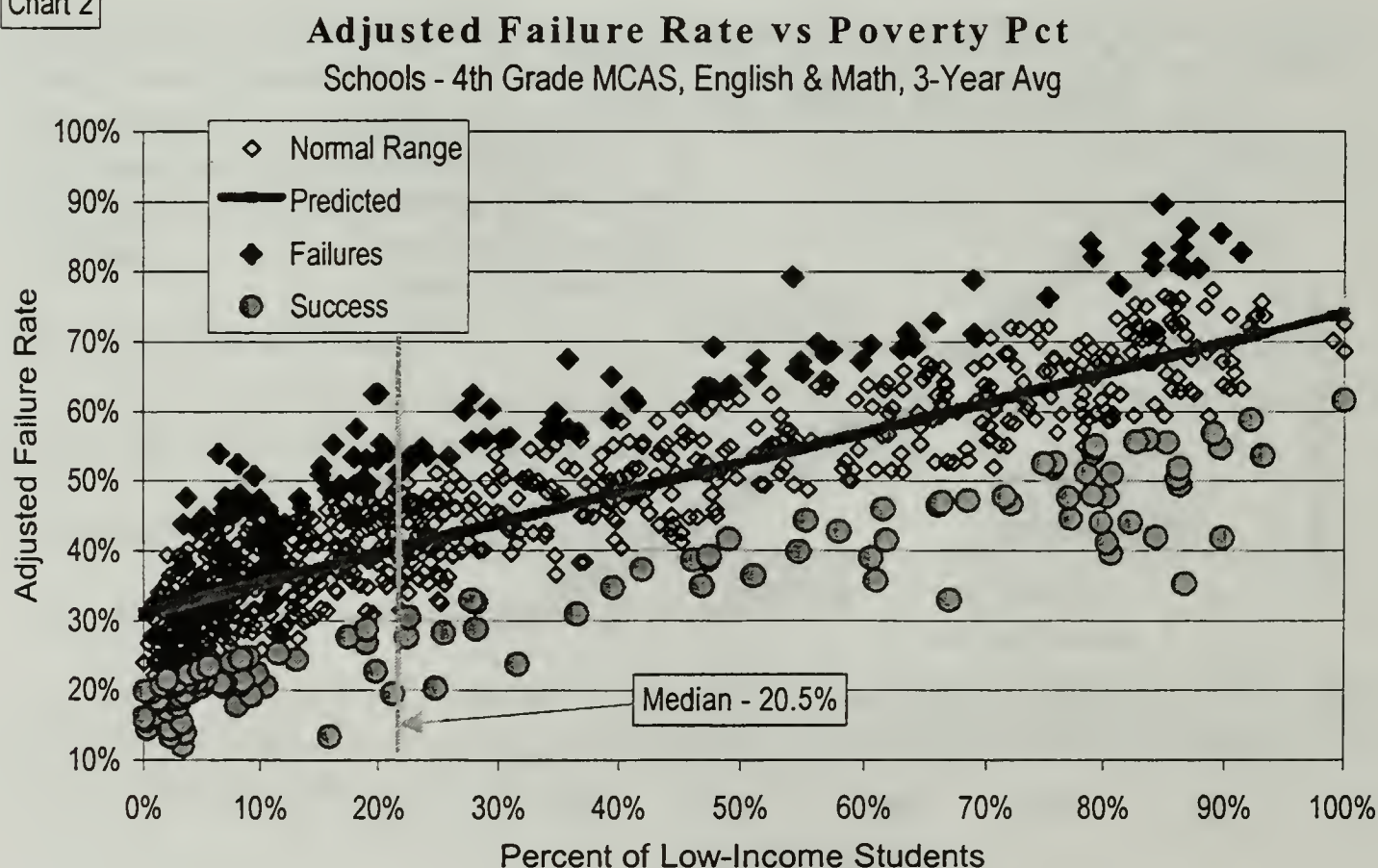
This study looked only at mathematics and English, as these subjects are central to all other subjects and they are the ones required for graduation. Also, the team used 3-year score averages, because the MCAS results for any school in any grade tend to vary considerably from year to year, and are not in consistent patterns. In most cases, a school that had test scores rise from 1998 to 1999 saw a reduction in 2000, and vice versa. Relatively few schools saw either increases or decreases both years.

Correlating Test Results and Poverty. Poverty rates were determined by eligibility for free or reduced price school meals. Then correlations were done for each grade level tested (4th, 8th, 10th).

4th Grade Results

Using regression analysis, the team found a strong correlation between poverty and test results, as illustrated in Chart 2. From these results, the team was able to identify schools whose scores did not fall into the expected range.

Chart 2



Each dot represents one school, with the poverty percent on the horizontal axis and the adjusted failure rate on the vertical axis. As might be expected, the higher the poverty rate the higher the failure rate. The diagonal line represents the statistical “best fit.” Schools’ poverty alone explains almost 70% of the variation in test results. Every 10%

increase in poverty (i.e., from 28% to 40%) increases the adjusted failure rate by 4.3% points (from 44% to just over 48%).

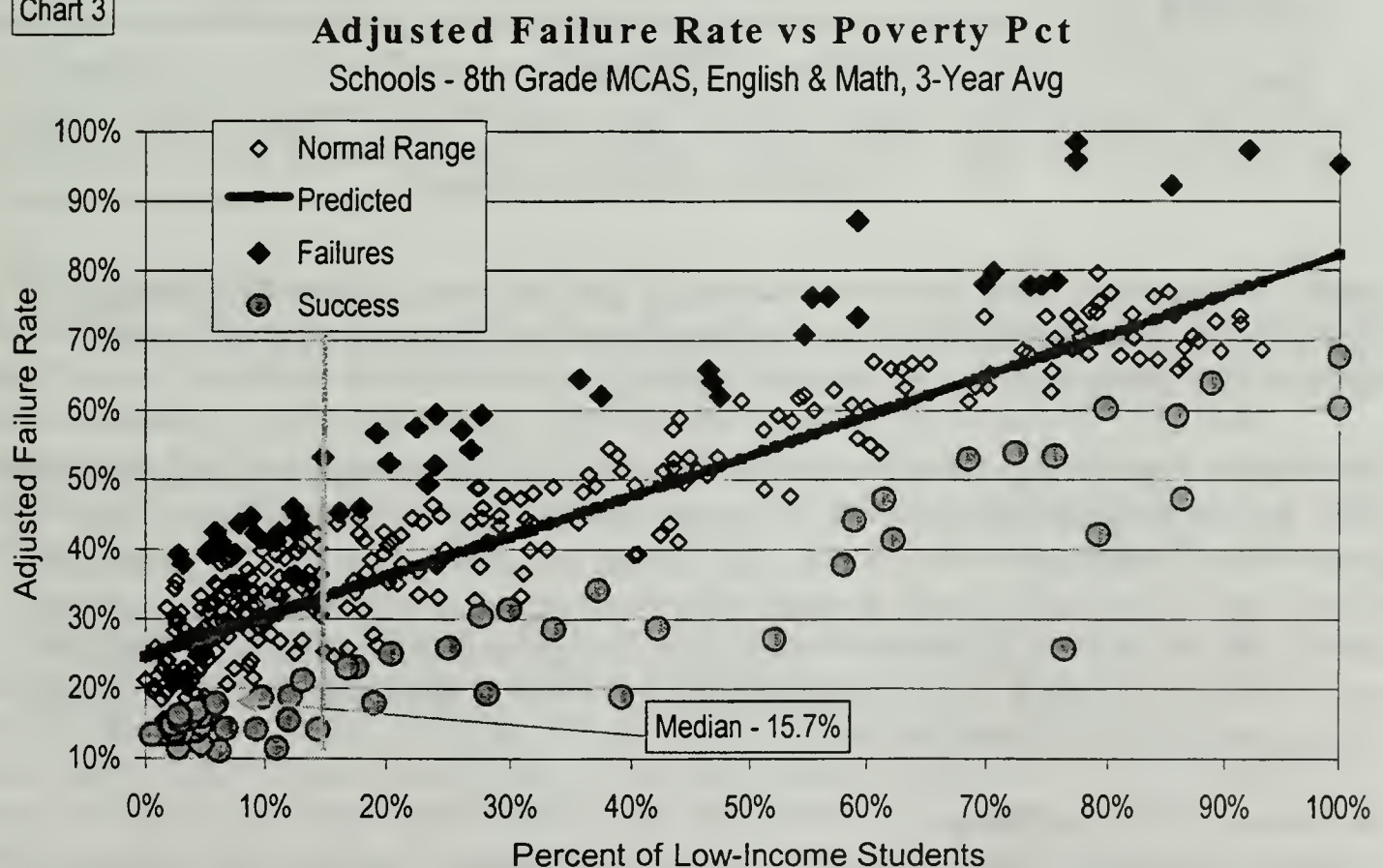
One sixth of Massachusetts elementary schools have poverty rates below 5%; virtually none of them have an adjusted failure rate above 40%. On the other hand, only a handful of the 1/3 of all schools with a poverty rate above 40% have an adjusted failure rate *below* 40%. Thus, with fewer than a dozen exceptions (there are over 1,000 elementary schools in the state), it can be said that ***the very best high-poverty schools have test scores below the very worst low-poverty schools***. Put another way, almost no high-poverty schools achieve the results that the lowest-poverty schools take for granted.

In selecting schools to visit, the research team was particularly interested in those schools that do better (or worse) than what one would expect from demographics alone. Thus, the schools shown as circles, with lower than expected failure rates, show impressive accomplishment, even though their adjusted failure rates may be relatively high. These are schools with adjusted failure rates at least 10 percentage points less than predicted. A school with 90% of its students in poverty is doing something right even if its adjusted failure rate is 40 or 50%. Similarly, the schools shown as filled-in diamonds are doing particularly poorly in relation to their demographics.

8th Grade Results

There were similar results in 8th grade, as shown in Chart 3. If anything, the relationship is even stronger between poverty and results – a 10-percentage point increase in poverty increases the adjusted failure rate by 5.8 percentage points.

Chart 3

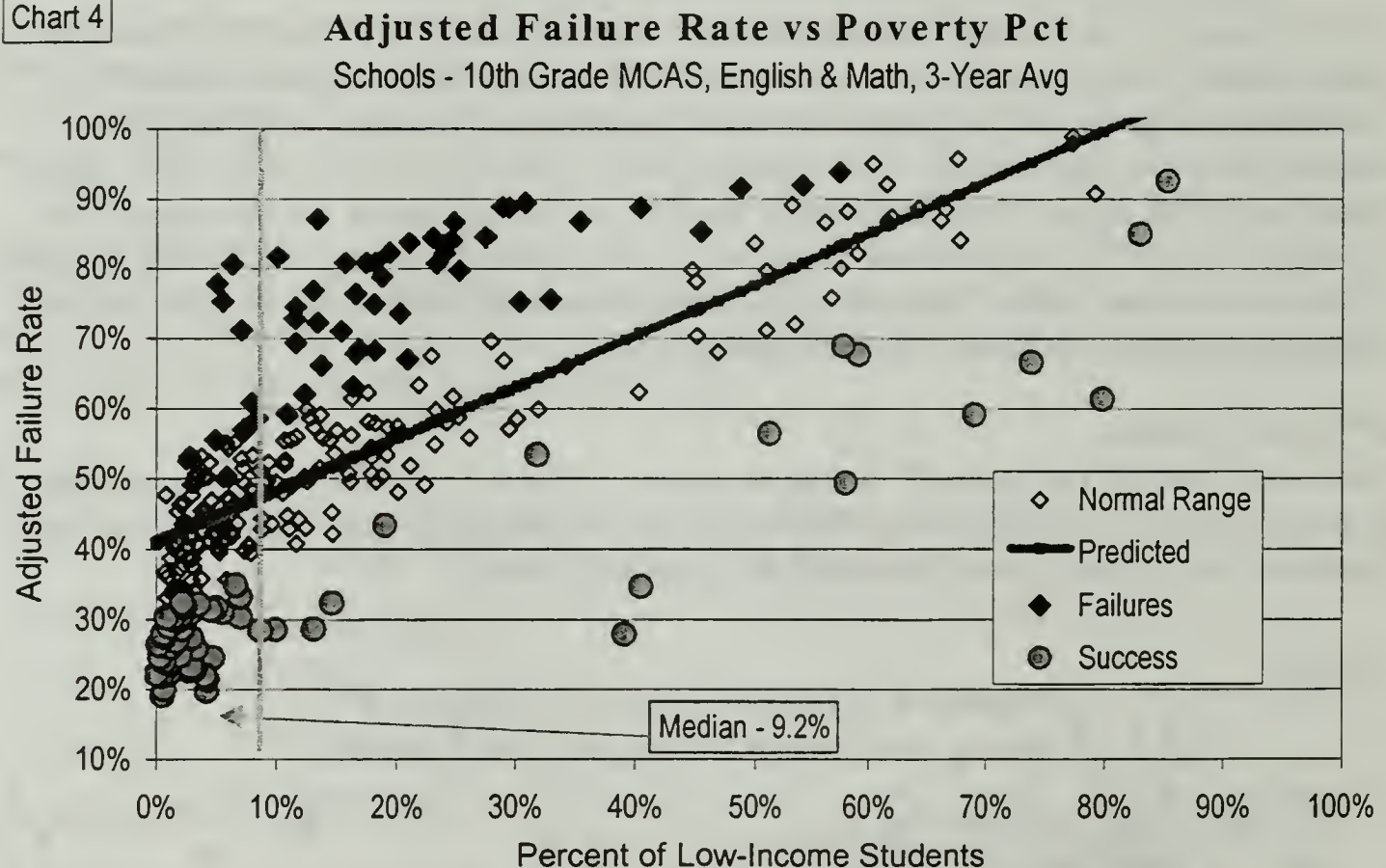


The schools that break the rule by combining high poverty with good performance are in fact exam schools (Boston Latin). Once again, only a handful of high poverty schools achieve results that low-poverty schools take for granted.

10th Grade Results

For high schools, the impact of poverty is still higher – every 10 percentage point increase in poverty raises the adjusted failure rate 7.3 percentage points, as shown in Chart 4.

Chart 4



Again, the apparent exceptions are in fact exam schools. In the case of high schools, all high poverty schools other than exam schools have adjusted failure rates above 50% while all low poverty schools score below 50%.

Most of the twenty-eight schools were selected from those whose poverty rates were over 20%: seventeen elementary schools, six middle schools, and five high schools. The proportion of elementary to middle to high schools was chosen to reflect the proportion of each grade level in the state. Fourteen schools were performing better than predicted by their poverty rate, and fourteen were performing less well than predicted. The intent was to try to understand why certain schools achieve while others faced with comparable challenges and new resources do not.

Interviews and Focus Groups

Schools were asked to participate; all but two agreed, and they were replaced. Principals were asked to invite a group of teachers representing various grades, experience levels,

subject areas, and roles (lead teachers, department heads, specialists) to participate in a focus group. In some cases an adequate representation of teachers could be assembled in one group; in many cases, two groups were necessary. Principals were asked to invite some parents as well, but given the difficulty of getting parents in to schools, considerable flexibility was allowed in selecting parents. Schools tended to invite parents who were active in some school role (employees, School Council members, parent coordinators) and therefore available. The team chose this approach of allowing principals to invite teachers and parents in a way most feasible for them, rather than using a rigorous scientific selection approach, to make the process as easy as possible for schools to participate. In fact, all groups included teachers with different perspectives, both positive and negative, on their school's experience in implementing MERA

The research team developed a questionnaire for use in the interviews (Appendix D). At each site an interviewer met separately with the principal and with groups that included teachers and department heads, and in some cases curriculum coordinators. A separate interview was conducted with the school superintendent, and with parents when available. Interviews and focus groups were approximately one hour long.

The visits were conducted during the months between February and May 2001. The schools were assured of confidentiality, although several of the high-scoring schools have won favorable recognition elsewhere. Principals and superintendents were questioned about changes in governance since 1993, including the changing role of school committees and principals in selecting or releasing faculty. They were asked, as were teachers in each school, what work had been done to introduce state standards, curriculum frameworks, new and appropriate course materials, rubrics for assessing student work, ways of reviewing data including MCAS results, changes in the way teachers were evaluated, opportunities for professional development, and about parent communications and involvement. Parents at the school were asked about the school council as well as ways in which they were kept informed about MERA and the work of the school. When possible, other community leaders such as those serving on a school council were interviewed.

Other Data Gathering

In addition to the site visits, a list of stakeholders was developed (Appendix E). This list was drawn from those individuals and groups who have been active in education reform over the past ten years and included professional association members, DOE staff, legislators, the Chairperson of the Board of Education, and representatives from higher education. Interviews with these stakeholders were conducted either in person or by phone.

A review of recent education reform research was also conducted in the five areas of the study. This included a review of articles and studies undertaken by researchers from universities, government agencies, and non-profit organizations and published in education journals and on web sites of professional organizations. Position papers from various associations and organizations were considered. (See Appendix F for bibliography.) In addition, questions for this study were included in a survey to schools on DOE capacity conducted by the University of Massachusetts on behalf of MERRC.

Data was collected on MA schools and education reform initiatives from other states. The work of research and development groups and studies regarding effective practices were also reviewed.

The following findings from the school visits, along with interviews with key stakeholders, set the framework for our findings and recommendations regarding standards and assessment, accountability, district capacity, teacher capacity, and finance.

III. SITE OBSERVATIONS/INTERVIEWS IN THIRTY SCHOOLS

Site visits resulted in the identification of trends and patterns for schools performing above, and schools performing below, expectations. These trends and patterns provide a lens for thinking about the conditions under which education reform works best.

Schools Performing Above Expectations

The school observers knew well that high-income neighborhoods tend to produce higher tests scores, largely because of the many advantages higher income children bring to school, including more exposure to books, music, educational trips and conversations with more college-educated adults. What was important was the discovery of “why do certain schools with a proportion of lower income children do better than predicted statistically?” These fifteen selected schools, in cities, industrial suburbs and rural areas scored between 228 and 250 on the MCAS exam. Their levels of achievement were better than predicted and substantially better than the other fifteen schools visited.

Compelling Features of These Schools

Strong Leadership

These high-achieving schools are characterized by strong leadership, especially from the principal who exerts instructional leadership and knows the work of students and teachers from frequent visits to the classrooms. The most effective principals are in and out of classrooms each week and appear to know as much about student progress as the teachers, which increases the productivity of all. This approach to instructional leadership and evaluation is not yet taught in all professional schools of education, according to principals interviewed.

The teachers respect the principal, ask for advice, and voluntarily will take on extra work or take courses she or he suggests. These principals ask the most effective teachers to mentor and assist newer teachers and to help plan and offer professional development. These principals know the MCAS test result data and recognize what adjustments in the program are needed in what grades, even in what classrooms. The best often volunteer to work with other principals, or in Boston act as cluster leaders and supervisors or mentors.

The other clear source of leadership comes from curriculum specialists, lead or head teachers, or other coordinators selected because they are gifted teachers of teachers. In Boston, effective teachers and administrators join in forming an Instructional Leadership Team, which concentrates on strategies that focus on improving student work and improving student and school performance.

Higher Expectations of All Students.

Higher expectations of all students is another characteristic of the higher achieving schools. The Mary Lyon School in Boston serves more than thirty students who previously would have been institutionalized because of their behavior; now they are integrated into an inclusive environment with neighborhood children of all races and income. Every student passed the MCAS in 1999. All but one student passed in 2000 and that student was a recent arrival to the United States.

At the Federal Furnace School (near a former metal forge in Plymouth) all fifth grade students complete a book, often generated on a computer, full of writings and personal research completed while a student. These schools believe in the Massachusetts Business Alliance for Education's slogan "Every child a winner!" If students need extra help or extra time, it is provided, before or after school, Saturdays, and during the summertime.

A Total System Approach to Instructional Improvement

Effective schools connect plans and curriculum revisions to their analysis of MCAS and other student achievement data.

Each effective school begins with a kindergarten program designed to promote readiness and familiarity with numbers and letters, and often with words. Most of all students are instilled with the joys of learning and collaborating. The first three grades need a sequence of instruction that allows grade 3 and 4 to be check-points. So also with the upper grades.

Effective schools at the upper grades begin by addressing the state standards, reviewing the curriculum frameworks and selecting the appropriate texts, lab resources and other learning experiences. Teachers teach the kind of complex problem solving and higher order thinking skills required for life in the 21st century. The systems approach requires teachers to shape a curriculum together, to know what the other teachers are doing or planning, to collaborate and share information. Teachers in these schools work together rather than in dysfunctional isolation.

Many schools are dedicating longer blocks of time to literacy or numeracy or adopting a block schedule in high school so that more time could be spent on learning and less time traveling in the hallways.

Use of Assessment Data

Most of the high-achieving schools use more than one set of tests. Several schools know with great precision at the end of grade two which students are performing at or above grade level.

The biggest focus on test data is now the MCAS results. The high-achieving schools generally engage in an analysis of which test items students handled successfully and which ones caused trouble, arraying the topics and skills and concepts from the top scores to the lowest. Then the teachers decide how best to increase student understanding and proficiency. The teachers also design strategies for teaching to the students' needs. High performing schools arrange for teachers to spend as much as eight hours analyzing the test data and deciding among themselves how to make adjustments in the curriculum.

One school tested very low on all poetry questions. The faculty and principal decided to read a poem over the loudspeaker each day. Students then created their own poems. Teachers led a discussion and an analysis of the qualities of a good poem. No wonder test scores on the poetry section soared the next year.

Other high-scoring schools employ other modes of evaluation, especially performance tests in occupations and portfolios in writing, photography, community service and other displays of proficiency. The MERA provides for multiple forms of assessment, not just the MCAS.

Rigorous Use of Validated Instructional Systems.

Effective reading programs require both phonemic development and vocabulary development. The children of college-educated parents bring to school 20,000 words compared to 4000 from a low-income family. Children must be read to, and have the chance to read aloud. Their development must be tracked. Successful schools do this through guided reading and running records. Many schools reported excellent results specific reading programs aimed at remediation for groups of no more than eight students at a time in the elementary grades.

Balanced literacy programs link writing to systematic increases in the level and quality of reading, which builds vocabulary. Higher achieving schools select a K-8 or a K-12 program, usually a nationally validated program. Many effective schools also employ a structured writing program that requires additional teacher training, sometimes during the day using substitute teachers. Support is provided to teachers as they use the program.

As the Plymouth superintendent summarized these efforts: "It is not so important which system is chosen but that the school makes a strong commitment to using a rigorous system." Allowing each teacher in each school to do his or her own thing has not worked in so many Massachusetts schools prior to standards and higher expectations.

Technology is present but not central to reform at this time. In most schools technology is not fully integrated into the curriculum, instruction and administration. Many schools use computers as word processors and find that it helps many children write better and more. Many schools publish the best essays online for others to enjoy and emulate.

One school visited uses the Internet to set up websites that allow teachers to share and review lesson plans, a practice strongly endorsed by Boston Superintendent Tom Payzant and by Rosabeth Kanter's 2001 book on technology.

New State and Foundation Dollars for Specialists and Smaller Class Size

Almost all the schools visited reported that the MERA funding had restored positions slashed from school budgets in 1982-85 after Proposition 2 1/2. The most effective schools not only lowered class sizes, especially in kindergarten through grade three, but hired specialists in art, music, physical education and several other areas. They schedule their specialists in time blocks so that they will all be teaching the same grade, freeing up all teachers of that grade to work together daily or at least three times a week. This imaginative use of time and specialists was much less in evidence in low-scoring schools.

Increase in Professional Development

The high-scoring schools are also much more likely to send teachers to the specialized courses mentioned above, such as the Reading Recovery or other validated programs, many of which require a time commitment of two or more hours per month.

School Contracts that Allow for Professional Development, and Stronger Evaluations

In several contracts teachers have agreed to expand the time after school, and at other times of the year, when teachers could work on school, improvement collaborative strategies, review closely the gaps revealed by MCAS, and decide who might best teach the foundation skills and concepts. Teachers and administrators feel that this extra time is essential to improved performance.

The higher-scoring schools are much more likely to have contracted for evaluation review cycles for experienced teachers already on tenure, as well as mentoring and frequent feedback sessions for first, second and third year teachers.

The contracts also allow for supervisors to formally observe classrooms at least three times a year, and informally observe on a regular basis. The evaluation forms allow the supervisors to provide specific, detailed feedback linked to state standards, student work, use of data, collaboration with other teachers and grades, and the creation of individual student success plans.

Parents Informed about Standards and the Work of the School

School councils presumably review and guide the principal and staff in developing a vision for the school, a strategic plan, a school improvement plan, and a budget supportive of those objectives. This ideal has not yet been achieved even at many of the high-scoring schools. Key parent leaders admitted they knew only a few general notions about state expectations, standards and curriculum frameworks. They all knew about MCAS and school scores. But more training about MERA and the local role is needed for the parent and elected leaders as well.

In Boston the school council is involved in principal selection interviews and parents participate in new teacher interviews. The emergence of school councils around the state remains in a primitive stage.

High-scoring schools, as well as some low-scoring schools, are working hard to inform parents of their children's progress on all skills, not only MCAS. MCAS questions have been placed on school websites and PTO newsletters. A few schools employ cable

television to reach out to homes and parents. The Boston newspapers publish supplements on school standards and how to prepare children for a more rigorous curriculum and tests. Reaching the lowest-income parents, who themselves may not read English, remains a very profound puzzle.

A Longer Day for Those Who Need It

The most effective high-scoring schools arrange for students to begin the school day earlier (possibly for a meal, tutoring, and/or enrichment) and to stay well into the afternoon, where state and federal grants can be used for individual tutoring and to do small group work tied to instructional objectives and the remediation of deficiencies. The Mary Lyon School in Boston employs a set of teachers who in effect work a second shift, from around noon to as late as 6 PM, which frees up other teachers for planning and collaboration in mid-day. Many schools employ aides and specialists to work within, before and after school hours.

Even the highest-scoring schools and teachers express nostalgia for the days when school allowed for more play, for a longer recess or lunch period, more field trips to museums, and recognition that small children should study their neighborhood or hometown before they study Egypt or Rome. Reform efforts have placed great pressure on all teachers, parents and children. The overwhelming majority of principals and teachers accept that challenge, cope with the stress, and expect more recognition from the community, the media, the employers and the state for the major efforts that have begun to bring Massachusetts schools to the brink of success.

Low-Achieving Schools

Why have some schools done so poorly on education reform as evidenced by below predicted MCAS examination scores? What impact has either MERA or the publication of MCAS scores had on low-achieving schools, their leaders and faculties and parents?

Characteristics of Low-Achieving Schools

A Wait and See Approach to Educational Reform

Observers visited one elementary school and one senior high school where during the first four years of education reform almost nothing new happened. The school committee and superintendent appear to take a “wait and see” approach. Perhaps education reform would sputter out, as had previous state reform initiatives. Nothing has been done systematically to introduce teachers to the new standards and frameworks, or to align the school program of instruction with those standards. Professional development is haphazard and not linked with education reform but to teacher preferences and career aspirations. One local leader described the community almost as an island of apathy and indifference, “the land that time forgot.”

Low Expectations for Students

In many low-achieving schools expectations for challenging under-performing students have been minimal. In schools where families did not seem to support high achievement

or appear disinterested, many teachers, counselors and administrators traditionally have not fought very hard to raise student expectations to higher levels.

Uninformed School Councils

School councils in some low-achieving schools are not informed about state standards and the techniques of planning and budgeting for school improvement strategies. Many read the local school MCAS test scores in the newspaper, which was humiliating at first. Then the MCAS results became an incentive to discover what they meant and how the school and students could do better.

Obstacles Due to Local Contracts

The school visits included some sites where teachers themselves were divided about the steps needed to achieve education reform. In several communities the organized teacher bargaining unit opposes contract changes that would provide for more time for teacher planning or for professional development. One recent teacher contract actually reduced the days set aside for professional development, teacher analysis of MCAS data, and staff planning. Another contract insisted on 150 minutes of planning time providing none of it was used for common planning with other staff. These provisions differed dramatically from higher-achieving schools where teachers, the superintendent and school committee found ways to add as many as three days, or in one case nine days, to the teachers' year to provide adequate professional time to increase school productivity by analyzing test data and planning to correct wide-spread deficiencies.

In some districts a teacher's contractual rights to exercise seniority in transferring to another school, therefore "bumping" new or junior teachers, creates problems in building effective grade level teams committed to standards and to sharing resources between teachers. Presumably it is the students who are entitled to the best opportunities in school but contracts in more than one low-scoring school have provisions that can break up grade level teacher teams who have begun to make progress.

Interference with Principals' Hiring Authority

Superintendents in most of the districts visited have delegated to principals the right to hire and fire teachers, as intended in the law. However, one principal said that the superintendent insists on the right to review each personnel decision and control the hiring, as had previously been the pattern. A similar scenario was seen in three of the systems visited.

Lack of Common Meeting and Planning Time for Teachers

Low-achieving schools were more likely to say that the schedule did not permit time for much common planning. In many, few efforts were made to allow teachers of the same grade or same subject to meet to discuss the curriculum revisions needed or ways to share effective lesson plans. One school provides only thirty minutes a week, which is often taken back for administrative tasks. Principals in low-achieving schools freely admit that teachers need more professional development in subject matter, in behavior management techniques, in special education "inclusion," and in instructional techniques that will increase student proficiency.

Teachers in low-achieving schools conceded that they haven't much time to discuss, analyze, and review the reasons for low MCAS scores or plan the necessary revisions. However, more than half are creating opportunities and bringing in experts or nearly college and university resources to assist them with these tasks.

Difficulties Dismissing Incompetent Staff

Principals complained about the cumbersome legal procedures still in place protecting low performing and uncooperative teachers who resist standards and self-improvement. They believe that the "just cause" standard for dismissal is still being applied in arbitration.

Student Transience

Other external factors led to drops in MCAS test score performance, including the high level of student turnover in certain inner-city schools. Several schools explained that of 22 - 25 students beginning grade 2, only 12 or so remained in the school at grade 4, replaced by newcomers. Some schools in growth communities experienced boundary changes, which meant new students were reassigned to a new building in grade 4, unaccustomed to the school culture. Teachers also note that some 4th grade cohorts are alert and cooperative; the same grade level next year may be restless and less inclined to learn.

Premature Expectations

Resources at the high school level have not been in place long enough for tenth graders for whom reform first was announced in grade three. As one superintendent explained "Neither poverty nor cancer was cured in seven years; how can you expect this of schools?"

Need for More Parent Involvement

Getting parents into the schools for teacher conferences, or getting them to understand state standards and scores, remains a problem for low-achieving schools. More than a few cities have citywide enrollment patterns which means that some parents live at a great distance from the school. Transportation to school for parents at night is often a problem. Chelsea has made great strides in providing van service, free baby-sitting services, and putting school leaders on local cable television programs. Such an effort is quite exceptional.

Conclusion

It remains true that new money is not the entire answer. Too many of these schools only partially implement school reform. If the state standards, the curriculum, the lesson plans and the new methods of teacher evaluation by the principals are not synchronized or aligned, student achievement will be spotty. If the contract protects teachers more than children, the time for teachers planning together or making adjustments following the review of MCAS test data by topic will not be sufficient to rebuild a more effective program. School committees and superintendents can empower reform or stand in the doorway impeding progress.

IV. STANDARDS AND ASSESSMENT

STANDARDS

Massachusetts, like every other state, has established standards in the four core academic subjects: English, mathematics, science, and history/social studies, and like most states, has established tests to measure achievement in reading and mathematics in elementary, middle, and high school. Massachusetts is one of only about 29 states that measure, or plan to measure, student achievement in science and social studies. A majority of these tests measure student performance against the state standards, rather than against national student performance norms.

Approximately half the states require, or will require within a few years, their students to pass a statewide test in order to graduate from high school. The low performance levels of large numbers of students on state tests to date have created pressure to lower standards, and have fed debate about high-stakes testing. Education Week's most recent rating of states on standards and accountability dropped use of a high school exit exam as an indicator because some states now require students to pass such an exam without holding schools or school staff similarly accountable. Also, nine of the 18 states that currently have exit exams do not pay for remedial instruction for students who fail the exams; and in many states, students who fail the tests do not have alternative means to show their knowledge and skills.²

In Massachusetts, as in most other states, the focus is now on improving standards, testing, and accountability systems, which are fundamental to education reform.

Curriculum Frameworks

MA learning standards, contained in documents known as curriculum frameworks, are among the best and most rigorous in the nation. In general, educators across the state support the frameworks and find that they provide clear direction and consistency between grade levels, across classrooms, schools, and school districts. Individual frameworks however vary widely in professional acceptance. There are currently seven frameworks in place: English Language Arts, mathematics, science, history/social studies, the arts, foreign language, and comprehensive health. English Language Arts, mathematics and science are fully implemented, while there continues to be debate about history/social studies. There are frameworks but no state test for the arts, foreign language and comprehensive health.

The English Language Arts Framework is generally accepted, especially with its emphasis on writing. Some question the pre-collegiate-like emphasis on contrasting prose and poetry selections, in contrast to consumer or civic prose selections. Others have expressed concern that the grade 4 reading level is too difficult.

² "Quality Counts 2001: A Better Balance: Standards, Tests and the Tools to Succeed," *Education Week*, (January 11, 2001), 20:16, 79

The Mathematics Framework has caused the greatest controversy with many in the field. The frameworks were adopted in 1995 and changed in 2000. Interactions between the Board of Education and mathematics educators became bitter and divisive during the change process. While there is general acceptance of the changes in the field now, there continues to be a vocal group of educators who feel the standards have been seriously undermined; and another group who feel the process by which they were changed was flawed.

The Science Framework initially created a great deal of consternation at the high school level by insisting on the integration of science disciplines. That has recently been changed, creating a mixed reaction between those districts that objected to the integration and those districts that went to great lengths to change their curriculum to be aligned with it. According to DOE, high schools in only five districts in the Commonwealth had, in fact, made this change.

There has been an on-going controversy over the content of the History/Social Studies Framework that has stalemated its final adoption. Teachers view it as being too broad and focusing too much on history. There are differences of opinion regarding the grade levels in which certain topics should be taught. Disagreement over content has been further exacerbated by the Board of Education's decision not to honor the inclusive process that had been a trademark of framework development and to rewrite the framework themselves in 1997.

The fact that the frameworks are not yet finalized is causing great frustration in the field. In fact, there is a widespread perception that the frameworks continue to change. This is most likely because the revision process has been very time consuming and, at times, contentious. Proposed revisions are made available for public hearings and, as various points of view are considered, the field becomes concerned that they are not working with the "correct" document. Districts spend scarce resources on textbooks as well as considerable time aligning the curriculum only to find that new changes may necessitate new texts and more curriculum modifications. DOE has indicated that the changes made thus far in science and mathematics have not necessitated new texts, despite the concern. *It is imperative that the History/Social Studies Framework be completed and that the frameworks are not changed again for five years.*

Also problematic is the impact of the frameworks when they are taken together. Districts find the amount of material that students are expected to master is overwhelming and unrealistic. It is resulting in the squeezing out of music, art, home economics, citizenship courses, field trips, and vocational explorations in order to place greater emphasis on language arts, mathematics, science, and social studies. This narrowing of cultural experiences, even while saluting verbal fluency and numerical literacy, is antithetical to the intent of the original Common Core of Learning. While some districts are countering this trend through creative scheduling, using community resources and the like, most districts feel negative curriculum constraints. *The DOE, with feedback from the field, must determine what are the critical standards in each framework and what is optional in order for the frameworks to be manageable for students and teachers.*

The Common Chapters

When the curriculum frameworks were first written, the DOE also developed The Common Chapters which included guiding principles around which to frame learning, habits of mind to be cultivated by students and teachers, and institutional structures conducive to student achievement. These Common Chapters have been ignored by the Board of Education. Many educators have indicated that they had provided a unifying theme to the frameworks and helped schools focus on good practices. *The Common Chapters should be revised as necessary and redistributed to all school districts.*


ASSESSMENT

MERA states:

“The system shall employ a variety of assessment instruments on either a comprehensive or statistically valid sampling basis. Such instruments shall be criterion referenced, assessing whether students are meeting the academic standards described in this chapter. As much as is practicable, especially in the case of students whose performance is difficult to assess using conventional methods, such instruments shall include consideration of work samples, projects and portfolios, and shall facilitate authentic and direct gauges of student performance.”³

Despite this call for a variety of assessment instruments, MCAS is the sole instrument being used to measure student performance. Further, it is being used to determine high school graduation. This high stakes test, in combination with the standards, has generated tremendous discussion and concern, as both supporters and opponents air their beliefs about its effects on schools and children. Indeed, on the team’s school visits, the first question asked of teachers and principals did not concern MCAS, but MCAS was the giant gorilla lurking in the room until the topic was raised. It brought out stronger emotion and opinions than any other aspect of education reform.

There is general agreement among educators, business leaders, and parents that there must be a system that measures student achievement and holds teachers, schools, and districts accountable by looking for an increase in student achievement over time. The question is how to construct a system well, and use it appropriately to improve student learning. Here is where opinions diverge. Issues concerning MCAS that were raised consistently in schools and in other interviews included the following.

 **Lack of MCAS alignment with standards, curriculum, and materials** Teachers expressed great frustration with the “disconnect” embodied in the state’s stance of requiring teachers to prepare students to pass a test on material that, all too often, teachers had not taught because their curriculum and teaching materials were not yet aligned with the test. Some teachers and administrators attribute the delay in alignment to the fact that the standards are still changing, with mathematics and science having been changed as recently as this past year. They argue that there has not been time for schools to modify their curricula and develop or purchase new materials and retrain teachers. DOE

³ The Massachusetts Educational Reform Act of 1993, Chapter 71 of the Massachusetts General Laws

maintains that these changes were, for the most part, not significant enough to have created a need for new materials.

Some teachers also asked “why frameworks without curriculum?” They said teachers had to spend a huge amount of time developing curriculum from scratch, whereas most would have preferred to be given a model to adapt. They said appropriate curriculum materials were not available. Even though many schools have now developed curricula and materials aligned with standards and MCAS, and trained teachers to use them, these have been put in place only recently. Students, however, were being tested with predictably poor results before the new materials and training were in place.

Some test content too broad, therefore shallow Another common concern is that all the frameworks, but especially history/social studies are “a mile wide and an inch deep.” Many educators believe that in order to “cover” all the topics that are supposed to be taught, they must give each one superficial treatment. Thus students do not develop a lasting and deep understanding or mastery of the material.

Difficulty level too high Educators pointed out that there are many examples in MCAS of overly difficult material, setting unrealistic expectations of students. There are other indicators of student achievement besides MCAS that suggest MA students have, over the last several years, been performing at higher levels than before, and above national averages, even if not at the level of achievement desired. These include results from the SAT, AP exams, NAEP, and TIMSS.

- ***Data on Student Achievement Scholastic Aptitude Test (SAT)*** The combined 2000 mathematics and verbal SAT scores in MA have risen eight points since 1998. The MA SAT I scores show a three-point increase on the verbal test, from 508 in 1998, to 511 in 2000. In addition, MA has one of the highest percentages of students nationally (78%) who take the SAT.⁴
- ***Advanced Placement Tests (AP)*** In 1993 18,900 AP exams were taken in Massachusetts. This number has nearly doubled to 35,214 in May 2000. Of these, 72.5% scored at 3 or better (a 3 is the necessary score to obtain college credit). This shows a significant increase from 1999 to 2000 of students scoring a 3 (17% increase), a 4 (18.2% increase) or a 5 (10.5% increase). The number of students taking one or more AP tests (15,212) has also increased by 9.8% from 1999. This makes the performance improvement even more significant, as typically the higher the participation, the lower the scores. The mean score in Massachusetts was 3.33, higher than the national mean of 3.01.⁵
- ***National Assessment of Educational Progress (NAEP)*** NAEP administered reading tests to 4th and 8th grade students in 1998, and mathematics tests to 4th and 8th grade students in 1996. The average scores for Massachusetts 4th and 8th grade students in reading were among the top 5 out of 44 states and territories that

⁴ “SAT 2000 College-Bound Seniors National Profile Report,” Internet: <http://www.collegeboard.org/sat/cbsenior/yr2000/ma.html>.

⁵ “AP National and MA Summary Reports,” Internet: http://cbweb1s.collegeboard.org/ap/2000/ma_2000.pdf

participated. Massachusetts averages in both grades 4 and 8 on the 1996 mathematics test and grade 8 science test and writing tests were also among the top in the country.⁶

- ***Third International Mathematics and Science Study (TIMSS) Often*** U.S. TIMSS scores are cited as proof that the U.S. is lagging behind many other countries in mathematics and science achievement. But now individual states can choose to have their scores compared internationally. The 1999 TIMSS Benchmarking Study showed that MA had a higher percentage of 8th grade mathematics students in the top 10% than all other 13 benchmarking states except for Connecticut. Participants' average scaled scores were also significantly higher than the international average, especially in science (although still well below the top scoring countries). The 1999 8th grade science benchmarking report noted that MA was one of only 3 benchmarking states where there were not significant gender differences.⁷

By comparison, MCAS scores do not paint as glowing a picture as these other tests suggest. DOE MCAS data shows improvement from 1998 to 2000 in grades 4 in English language arts, mathematics, and science; in grade 8 scores went up in English language arts and science but down in mathematics; and in grade 10 showed improvement in mathematics, but decreased in English language arts and science. However, failure rates are still unacceptably high, especially at the higher grade levels where a greater portion of students' schooling was pre-education reform (e.g., 45% of 10th graders failed mathematics). Table I, Table II, Table III⁸ summarize the statewide results of the 2000 tests.

TABLE I

2000 STATEWIDE MCAS RESULTS Grade 4					
	Scaled Score	<i>Advanced</i>	<i>Proficient</i>	<i>Needs Improvement</i>	<i>Failing</i>
ELA	231	1	19	67	13
Mathematics	235	12	28	42	18
Science	241	11	51	30	8

⁶ "The Nation's Report Card, National Assessment of Educational Progress (NAEP)" Internet: <http://nces.ed.gov/nationsreportcard/> 2000

⁷ "The Third International Mathematics and Science Study 1999," Internet: www.timss.org/timss1999.benchmarkhtml

⁸ "Massachusetts Board of Education 2000 Annual Report," February 2001, p.8

TABLE II

2000 STATEWIDE MCAS RESULTS Grade 8					
	Scaled Score	<i>Advanced</i>	<i>Proficient</i>	<i>Needs Improvement</i>	<i>Failing</i>
ELA	240	5	57	27	11
Mathematics	228	10	24	27	39
Science	228	6	29	27	37
History/SS	221	1	10	45	45

TABLE III

2000 STATEWIDE MCAS RESULTS Grade 10					
	Scaled Score	<i>Advanced</i>	<i>Proficient</i>	<i>Needs Improvement</i>	<i>Failing</i>
ELA	229	7	29	30	34
Mathematics	228	15	18	22	45
Science	226	3	23	37	37

With some deviations to which this study has paid particular attention, there is also a clear correlation between MCAS scores and the community socio-economic level, with high failure rates among poor communities, and relatively few failures among wealthy communities. Hispanic and African-American students also failed at a much higher rate than did white students. Eighty percent of African-American high school students failed mathematics and 57% failed English. The Hispanic high school failure rate was 85% for mathematics and 63% for English.⁹ In contrast, the failure rate of white students was 25% in English and 45% in mathematics. *The gap between the achievement levels of Hispanic and African-American students and white students is of major concern. DOE and districts must focus reform efforts on reducing this gap. Research on effective approaches and practices must also be conducted.*

Given how well MA students perform on nationally normed tests such as the NAEP, TIMSS, SAT, and AP exams, one wonders why results on MCAS present such a different

⁹“Report of the 1999 Massachusetts and Local School District MCAS Results by Race/Ethnicity,” The Massachusetts Department of Education. http://www.doe.mass.edu:80/mcas/race_report99/default.html

picture. MCAS is, by design, a different test – criterion referenced as opposed to norm referenced -- measuring achievement against MA standards, not against performance of some reference group. Also, MA is one of the wealthiest states, and there is a correlation between wealth and achievement. But, if MA students do as well as they do against others on national tests, it is also reasonable to ask whether or not standards which MCAS is testing are simply too difficult.

Using MCAS to Assess Student Growth and School Improvement

The MCAS tries to serve too many purposes. It is currently being used to:

- assess individual student achievement, from basic mastery to advanced proficiency
- diagnose problems in the curriculum
- measure school improvement
- provide an assessment model for schools.

This is expecting a great deal from one test. The state's willingness to release all MCAS questions each year have made it an invaluable tool for diagnosing districts' curriculum. It has also helped teachers learn how to use a rubric for measuring achievement and how to construct open-ended questions. For assessing student growth and school improvement, however, it must be supplemented.

Punishes students for schools' failure – While education reform requires better performance on the part of schools as well as parents, state administrators, employers, legislators, and other adults, it is students who will pay the highest price for not meeting the new performance levels. This is particularly unfair because it is the failure of schools (and other adult entities) to adequately prepare students that leads to student failure.

Affects students in disadvantaged communities, racial/ethnic minorities, and disabled students most negatively -- The negative side of setting high expectations for everyone is punishing those students for whom the expectations are unrealistic. Educators (at least those in successful schools) strongly believe that all students can eventually meet the same high expectations, yet many feel that disadvantaged students need more help and support than other students and probably more time to achieve the desired levels, given their educational deficits.

High stakes may increase dropout rate, especially for at risk students Many educators worry that the actual or expected MCAS failure of at risk students will serve to discourage these students from trying and will encourage them to drop out. This fear has not been borne out by MA drop-out data to date. DOE statistics show no significant overall change in drop-out rates of MA high school students between 1995 and 2000. Research suggests, however, that the incentive effects of raising standards vary among students depending on their prior achievement level. That is, for students at risk of failing under the higher standard, those close to passing the new standards will be stimulated to try harder, while others farther away from passing will be discouraged and

reduce effort or drop out.¹⁰ Other research shows highly discouraging dropout data for Latino students. According to a recent report,¹¹ almost ten years of educational reform initiatives seem to have left Latinos untouched. 1998 cohort dropout data from the Massachusetts Department of Education (DOE) show that 29% of Latino 9th graders in Massachusetts will probably not finish high school, the highest dropout rate for any group in the state and almost three times that of white students. Latinos also have the highest failure rates in all areas, for all grades, in the first year of testing using the Massachusetts Comprehensive Assessment System (MCAS).¹² Another report¹³ authored by Anne Wheelock and issued by FairTest and the Coalition for Authentic Reform in Education (CARE) provides data to show that high stakes testing exacerbates the dropout problem.

- African American, Latino, and urban students are already dramatically over-represented among dropouts. Latino students make up 9% of MA high school enrollment but 24% of dropouts; African American students comprise 8% of MA secondary school enrollment but 16% of dropouts. Together these two groups of students account for 40% of dropouts. And the gap is growing since MCAS.
- Early dropout rates are increasing (before 9th grade). In 1999, 25% of dropouts came from 9th grade.
- Students in six large urban districts (Boston, Springfield, Worcester, New Bedford, Lowell, Lawrence) are particularly at risk. By 1999, 39% of all dropouts came from these six districts (from 32% in 1997).

The author brings in research results from others to support her arguments. In a major report published by the American Educational Research Association, researchers Thomas Kellaghan, George Madaus, and Anastasia Raczek (1996) found that high-stakes testing can actually undermine motivation, especially for students who already have a tenuous hold on schooling. Wheelock's interviews with students also suggest that "many who have already failed MCAS once do not view the 'opportunity' to repeat that failure as a strong motivator for working harder."

Wheelock argues that high-stakes testing also sabotages schools' "holding power," especially in schools enrolling large numbers of vulnerable students. Researchers from the National Board for Educational Testing and Public Policy (Clarke, Haney, & Madaus, 2000) cite correlations such as:

¹⁰ J. R. Betts and R.M. Costrell, *Incentives and Equity under Standards-Based Reform*, in forthcoming Diane Ravitch (ed.) *Brookings Papers on Education Policy 2001*, (Washington, D.C.: Brookings Institution)

¹¹ M. Uriate and L. Chavez, *Latino Students and the Massachusetts Public Schools*. The Massachusetts Institute for Latino Community Development and Public Policy at the University of Massachusetts Boston, (March 2000)

¹² Report of 1999 Massachusetts and Local School District MCAS Results by Race/Ethnicity. *The Massachusetts Comprehensive Assessment System (MCAS)*

¹³ A. Wheelock, *MCAS Alert*, FairTest/ Coalition for Authentic Reform in Education (CARE), September 2000. <http://www.fairtest.org/ARN/masspage.html>

- Nine of the ten states with the highest dropout rates in the country tie test scores to decisions about graduation, while none of the ten states with the lowest dropout rates have such a policy.
- During the first year of Texas graduation testing in 1991, the proportion of students progressing from ninth grade to graduation on time declined dramatically, a drop 50% greater for African American and Latino students than for white students. Although white students have recovered “normal” pre-testing progression rates, African American and Latino students have not done so.

These findings have been questioned and are open to debate. As discussed, DOE statistics show no change in the drop-out rates of MA high school students over the past five years. Nonetheless, the drop-out issue remains a significant concern. There are reasons to be concerned that the stakes might affect the rate, as the research suggests. This must be watched closely over the next few years.

There is no question of major discrepancies between drop-out rates of minority students and white students. The drop-out rate for Hispanic students (9.8%) is four times the rate of white students (2.5%), yet they make up only 10% of the k-12 student population, while white students make up 76.6%. African American students make up 8.62%¹⁴ of the K-12 population, and their drop-out rate is three times higher than white students. The disproportionate number of black and Hispanic drop-outs represents a serious problem that must be addressed. DOE must continue to watch drop-out rates, disaggregated by race and ethnicity, closely.

Unintended consequences – While a number of teachers observed were teaching interesting, creative lessons aligned to the frameworks, some teachers interviewed felt a loss of creativity and coverage of important topics in their teaching as they are forced to teach both content and test-taking skills required by MCAS. Their concerns are mirrored by teachers and parents nationally, who note increases in “drill and kill” teaching and in student stress.¹⁵ Indeed, some experts are concerned that the kinds of instructional changes being seen do not run deep. Many teachers seem to feel pressured to teach to MCAS, rather than focus on the important concepts embedded in the standards. William A Firestone, professor of educational policy at Rutgers University, says “What’s harder to do (than covering more/different content) is get teachers to change the ways they’re teaching, so that it really encourages students to think mathematically or think scientifically.”¹⁶

Test and Implementation Issues

- *Random order of questions in terms of difficulty discourages test-takers* A frequently heard concern is that students panic upon seeing the more difficult test

¹⁴ “Massachusetts Board of Education 2000 Annual Report,” February 2001

¹⁵ “Quality Counts 2001,” *Education Week*: 15

¹⁶ “Quality Counts 2001,” *Education Week*: 15

items early in the test. Some students give up on the entire exam without attempting questions they could ordinarily answer. Many people find it hard to understand the rationale for not arranging MCAS questions in an ascending order of difficulty, so that students can have more time to answer easier questions before spending time and getting discouraged on those that are well beyond their ability level. *Test questions should be ordered by the level of difficulty.*

- ***Testing conditions were difficult and did not allow optimum performance.*** A variety of issues emerged: tests are given on school days in widely varying school settings, many of which are hot, noisy, and uncomfortable for several hours of testing. Some students did not have access to food or water during the testing period. Some schools did not receive all testing materials until the last minute, and administrators were forced to make copies themselves. While these may sound like minor glitches, they can have significant impact on some students' performance.
- ***Months-long wait for test results reduces their usefulness*** The MCAS test results do not become available each year, even in raw form, for several months. It is even longer before individual student results are available. By this time it is well into the next school year. This delays the necessary analysis of data, curriculum adjustments at the classroom level, and course changes or remediation for students. This long wait is caused by the extensive amount of time it takes to score the long essay part of the test, which is currently done by teachers and other interested people who are hired and trained to grade the tests during the summer months. *Results of the short answer portion of the tests should be returned during the same school year the test is given. Only the long answer components of the tests should be returned in the fall. This will provide districts with some early data that they can use in making decisions about student placement and/or curriculum modifications for the coming year.* The DOE is working on this.

Key questions that deserve the most serious exploration are:

1. Should there be high stakes testing?

A number of criticisms of high stakes testing have been noted. Many experienced, knowledgeable, and passionate educators as well as parents and others believe that high stakes testing is wrong. Yet other knowledgeable and caring educators (including some MA urban superintendents) as well as parents and others point to significant improvements in education brought about under standards-based reform, with high stakes testing playing a key role. Without high stakes tests, they argue, there would be insufficient leverage on schools and students to motivate the dramatic changes in behavior that are required to significantly raise student achievement. A strong argument in favor of postponing high stakes is that it is not fair to hold students accountable for learning what they have not been taught. On the other hand, delaying the high stakes could send a message that the state is backing away from standards. This would undermine hard-won progress to date, according to the superintendents in the two largest cities in MA, Boston and Worcester.

A reasonable compromise would be to withhold any decisions relative to postponing stakes until the spring of 2002. 2001 MCAS scores will have been published, and high school students who did not pass will have had an opportunity for remediation and will have taken a retest. Results of this retake will be available. If these scores continue to be poor it will be time to give serious consideration to a variety of approaches while preserving the principles, the standards, and the test. It will also still be early enough to make decisions regarding the first group of students for whom high stakes apply.

Another one of the fundamental objections to high stakes testing needs to be addressed regardless: reliance on a single measurement instrument, from one snapshot in time, to make important decisions automatically about students, teachers, or schools, without considering other indicators of achievement over time, is an inappropriate and unfair assessment approach. George Madaus, professor of education at Boston College, says that “testing is a fallible technology,” and should play only a part in assessment of learning. Daniel Koretz, senior social scientist at the RAND Corp., raises questions about the validity of such tests for measuring progress toward state standards by pointing out a fairly universal pattern that test scores follow: they start low, rise quickly for a couple of years, level off for a few more years, then gradually drop over time.¹⁷ It is difficult to argue that important life decisions should be made on the basis of any deeply flawed testing approach. This leads to the next consideration, that of expanding the basis of assessment to include multiple indicators of achievement.

2. Should there be multiple measures of student and school performance?

The solution to single snapshot high stakes assessments, many say, is to enrich the assessment approach through considering other measures to supplement the test. Measures could include SAT II, AP, and/or the International Baccalaureate exams, Test of English as a Foreign Language (TOEFL) for recent immigrant children. These measures are in some cases tougher than MCAS as well as more appropriate for specific groups of students. States including California, Kentucky, and Vermont and groups such as New Standards pioneered work on new performance assessments and portfolios, but few states have incorporated such measures into their tests. Some states (Arizona, California, Kentucky, Wisconsin) have pulled back from earlier such efforts. Teachers in Maryland, which does use richer measurements, have found them useful. But others criticize the Maryland test¹⁸ “Only seven states have performance assessments in subjects other than English. And only two – Kentucky and Vermont – use portfolios, or compilations of students’ classroom work, to help measure student progress.”¹⁹ *One approach would be to have districts create their own assessment approach, which might include some combination of classroom tests, portfolios, performance assessments, and standardized tests, and which would require approval by DOE. Regional or district juries of teachers, administrators, experts and business people in the field being tested,*

¹⁷ David Hoff, “Testing’s Ups and Downs Predictable” *Education Week*: Internet: <http://www.edweek.org/ew/ewstory.cfm?slug=14ETS.h19&keywords=David%20Hoff>

¹⁸ “Quality Counts 2001,” *Education Week*: 142

¹⁹ *Ibid.*: 17

perhaps trained by DOE, would judge the student results. A variation on this might be for DOE to create a template for a valid assessment approach, which districts would use to develop theirs. Educators have indicated an interest in authentic assessment approaches, which could be adopted through the above means. There is also strong support for a component of the exam to be locally developed. Experts agree that we do not have a good handle on how to construct a valid system of multiple measures, but many knowledgeable and committed people seem willing to tackle the problem.

3. How High Should the Bar Be Set?

Massachusetts developed an extremely challenging test and score cutoff scheme compared to most other states. Many students had similar experiences to those in Holliston, who were rated “advanced” in mathematics on the Stanford Achievement Test-9th Edition, yet scored in “failure” or “needs improvement” on the MCAS.²⁰ Scores overall statewide have been very disappointing, rising only modestly over three years.

Many educators believe that the MCAS bar is set too high and have suggested that “Needs Improvement” (now “warning” in grades 4 and 8) should, as was originally planned, be considered “Basic.” According to the Massachusetts Association of School Superintendents:

“To discount the performance of [students scoring in the ‘needs improvement’ category] is to ignore the majority of students who attend public school...

... The vast majority of students who scored in “Needs Improvement” are average high school students. Their performance is average, indicating mastery of the basic skills needed for a successful and productive adult life. Many of these students will attend college and/or technical schools. They will enter the workplace in all walks of life; they will become managers or own their own business... They have achieved at an acceptable academic level to live productively in a complex society.”²¹

In support of the position that the bar is set too high is the difference between student performance on MCAS versus on other standardized tests. As previously discussed, MCAS differs from the others as it is criterion referenced and tied directly to mastery of the learning standards in the frameworks. One can also partially attribute these relatively high results to the relative wealth in MA. However, it is useful to note that MA is among the top scoring states on the NAEP, and above average on all national standardized tests.

²⁰ Ibid.: 53

²¹ Massachusetts Association of School Superintendents, *School District Accountability Position Paper*. A M.A.S.S. Position Paper (November 1999): 3

The question of whether or not the bar is too high might be asked of the business community and higher education as well as the educational community. Would business leaders and members of the higher education community, in looking at the tests of students in the “Needs Improvement” category, find these students to be prepared to “live productively in a complex society?” If so, then the category should be changed to “Basic” or “Average.”

The fact is that the question of how high to set the bar is a judgment call. While there are established techniques for deciding how to rate scores (one of which MA used: the “booklet classification method”),²² they all involve some set of human beings making judgments about competency levels reflected by test scores. States have taken very different approaches to this task: Texas, for example, has set low passing scores for TAAS and then raised the bar by small amounts each year. Overall passing rates have increased from 53% in 1994 to 80% in 2000, with some of the biggest gains coming among minority students.²³ Virginia, like Massachusetts, has elected to set academic goals high, and 98% of schools failed on the first administration in 1998. While scores have improved since then, still the state board has extended from 2001 to 2004 the date at which students must pass the test to graduate.

Achieve, Inc. sees where to set the bar for student performance as one of the toughest challenges facing the standards-based movement, the others being how fast states should expect performance to improve, and how to identify multiple measures of student learning.

4. Are the standards too high? Do they really represent what all students should know and be able to do when they graduate from high school?

Another related question concerns the standards themselves. MCAS is testing attainment of the standards articulated in the curriculum frameworks. Assertions that MCAS is too difficult may suggest that the standards in the curriculum frameworks, though laudable, are too stringent and/or too academic to be the standards set for all students. It is important to recognize the difference between requirements for passing MCAS and requirements for obtaining an “advanced score” on MCAS. MA students do significantly better on nationally standardized tests than they do on MCAS. The standards are considered among the most rigorous in the country, and although clearly all students should be kept to standards high enough to assure them that they are ready to live a successful life after high school, whether or not they go on to college, the primary question is whether or not the passing bar is set at the right level of proficiency. Nonetheless, it is worth asking the question as to whether or not the current standards exceed this point at the expense of some students. This is

²² “Quality Counts 2001,” *Education Week*: 54

²³ “Quality Counts 2001,” *Education Week*: 55

Some feel the test, as currently structured, is more of a college admissions test than a high school completion test, and the two are not and should not be the same. Indeed, the fact that students who repeat the test have a “scaled down” version with the most difficult questions eliminated is testimony that there is a more basic expectation of mastery that would suffice for the attainment of a diploma.

MA state standards should be evaluated by an outside agency on a variety of criteria. Achieve identifies clarity and accessibility, measurability, comprehensiveness and focus, balance, and rigor as important.²⁴ This would resolve some of the questions that have emerged around the standards themselves.

It is important to remember that changes in the curriculum have not yet had their full effect on students, particularly at the high school level. It is still early in the implementation of MCAS and the curriculum frameworks upon which they are based. Change in schools takes a long time. It took several years to develop the frameworks. Given the small amount of professional time available to retrain teachers, it took another two or more years to share the frameworks with the schools and to train teachers and administrators to use them. School districts then determined necessary changes, developed curriculum, purchased appropriate curriculum resources, and finally taught the new curriculum.

The students also need to “grow up” with the new curriculum. Better results are seen in grade 4 than grades 8 or 10 because students have been exposed to the new curriculum from the start of their education. For example, there is now an earlier emphasis on teaching writing skills. Students who have been focusing on writing skill development since grade one do better in writing than those students who were given writing instruction later. Districts are moving forward, some more successfully than others. In most cases, as will be discussed later, there are benchmarks that can be acknowledged: curriculum alignment, teachers’ knowledge of the frameworks, teacher participation in professional development on the frameworks, etc. Research indicates that standards and accountability systems do affect the incentives of students, parents, and schools.

5. Should there be a two-tiered diploma?

A two-tiered diploma would give a local diploma to all students who complete their high school course requirements and another diploma to those who pass MCAS as well. There is a strong case for a two-tiered diploma for several reasons: 1) it removes an obstacle in attending community college, 2) it eliminates the risk of ineligibility for other improvement opportunities and/or 3) it results in districts being responsible for all special education students who perform in accordance with their educational plans, but still cannot pass the MCAS.

- *Develop a 2-tiered diploma system. Students should not be admitted to publicly-funded 4-year colleges and universities unless they pass MCAS. This will keep*

²⁴ “Better Standards, Better Schools,” Achieve, Inc. 1999 Annual Report. Internet: <http://www.achieve.org>

attention focused on improved student results. Students who fail the MCAS but otherwise meet local standards for graduation should be awarded local diplomas, which will qualify them for community colleges and give them the opportunity to seek Pell grant funding. Failure to do this risks withholding federal financial help to students who may successfully use community colleges as pathways to successful futures. The Legislature should support a program for students who have failed MCAS twice similar to the dual enrollment program (simultaneous enrollment in high school and community college) for higher achieving students.

In addition, according to Betts and Costrell, credentials offering fuller information (e.g., several differentiated credentials) than binary credentials (pass/fail) would be a stimulus to top students. They would be positive for bottom end students as well, providing achievable levels of performance such as a certificate of completion. However, those who would meet the state standard, but barely, would feel negative effects of fuller information.

A key policy dilemma is how much difference there should be between a standards-based diploma and any lesser credentials. Too much means a disincentive for low end students; too little is a disincentive for students who might meet a higher level if the effort is worth it. This will have to be worked out through trial and error.²⁵

6. What are the implications for vocational students?

Vocational students need to be highly literate and well versed in mathematics to perform the jobs for which they are being prepared. For example, it is their ability to read technical journals and to apply mathematical principals to job-related situations that will determine their future success. Yet, the English Language Arts test focuses reading comprehension on literature, not technical reading; and the mathematics is theoretical rather than applied. DOE has indicated that past MCAS tests have contained vocationally oriented questions, and students did no better on these items than on others. However, this approach should still be pursued. Vocational education students should be assessed, at least in part, for their technical proficiencies. While these skills are being assessed in order for them to obtain their Certificate of Occupational Proficiency (COPS), it is still questionable as to whether they should be expected to pass both independently. COPS skills are no easier to attain than those tested on MCAS and they are more relevant to the career goals of these students. *Consideration should be given to using a combined score, where each assessment counts as a predetermined percentage of the total.*

7. Is the MCAS appropriate for Special Education and English as a Second Language Students?

A report prepared for the DOE on the performance of limited English proficient students on the MCAS found that “even controlling for poverty, there are notable differences in the performance results of regular education students and students with limited English

²⁵ Betts, J. R. & Costrell, R. M. *Incentives and Equity under Standards-Based Reform.*

proficiency.”²⁶ It also notes that the “students with limited English proficiency will need extensive instructional support to be on an equal footing with their regular education peers.”²⁷

The DOE is developing an English as a Second Language curriculum framework that should set standards for improving the achievement of limited English proficient students. This may be an important step in reducing the achievement gap. Whether MCAS is an appropriate assessment tool must also be considered, however. The mathematics and science tests are very language dependent. It is important to determine if the language barrier is to any degree obscuring achievement, particularly in mathematics.

Alternative assessments are part of the modifications available to students with special education needs. Those who still cannot pass the 10th grade MCAS will be awarded a local certificate of completion. This, however, will not enable them to continue schooling at a community college. It is also important to note that a school district is responsible for students with special needs until they either reach 22 or graduate from high school. The question arises: does a district continue to be responsible for all special education students who meet the goals set for them in their education plans but cannot pass the MCAS exam? If so, what costs are attached to this longer commitment? A two-tiered diploma resolves these problems.

8. What is in place for students who, even after five attempts fail to pass MCAS?

Governor Swift has stated that if, after five attempts students still fail to pass the MCAS exam, the state public higher education system will provide additional opportunities for students to improve their literacy and computation skills through the community colleges. This is an important commitment since community college is the avenue that many students who fare poorly in high school use to better their lives. Most students, however, rely on federal Pell grants to subsidize their community college education. These grants are not available to students who have not obtained a high school diploma. So, the very students that could be helped through this commitment will also be prevented from following through. We must be certain that we are not taking away students’ opportunities to succeed beyond high school. They should be assured a year of remediation at a community college, should they be motivated to continue their schooling.

Conclusion

The standards-based reform initiatives brought by MERA have stimulated profound change in schools across the Commonwealth. Massachusetts has set the bar high for students in terms of both the assessment instrument and the timetable for attaining prescribed levels of achievement. Meanwhile, the state is scrambling to assist schools in offering students the improved instruction and supports they need to meet the new

²⁶ “The Performance of Limited English Proficient Students on the 1998 and 1999 Massachusetts Comprehensive Assessment System,” Executive Summary, Northeast and Islands Regional Educational Laboratory. October 2000, 6

²⁷ Northeast and Islands Regional Educational Laboratory: 5

standards. With the stakes so high, many people are raising serious challenges about whether too much is being demanded too soon to meet the fundamental requirement of fairness to students. People of good will on all sides of these issues must be engaged in the process of creating solutions to the problems inherent in this reform process. Returning to the old ways of doing things, which allowed too many students to graduate without learning enough to be literate adults, is not a viable option.

V. ACCOUNTABILITY

DOE Evaluation of Districts

The purpose of the School Accountability System, according to Chapter 69 of the General Laws, is to assess which schools are improving student performance and which are not. DOE, hampered by legislative and executive office decisions, is having difficulty carrying out its mandate to develop and implement procedures for district and school accountability.

In Fall 2000, under Governor Cellucci, the district review responsibility was taken away from the DOE and placed in the office of the Governor's education advisor. The DOE had already developed a thorough prototype for the reviews, had conducted pilots in several districts, put together outside review teams, and notified districts that were to be audited. This prototype was, by all accounts, well thought out, well developed, and comprehensive.

These efforts were called to a halt by the Governor's Office, causing confusion and frustration in the field, and were a tremendous waste of time and effort. Still worse, the entire process of auditing was delayed a year. Now, with the recent change of governors, this function is again in flux. There is discussion of beginning the process of developing an accountability system all over again. In addition, the funding is no longer available.

Too much time has been spent on hold. Students are being held accountable for their achievement, even before curriculum frameworks are complete. They are even at risk of not graduating from high school. Yet, there are unacceptably long delays in putting a system in place that holds adults accountable. *There is no way now of determining if adults in schools, districts, or at the state level, have put into place the curriculum, training, processes and structures needed to help students to succeed. It is totally inappropriate to hold students to higher standards than adults. This must be remedied immediately.*

The DOE historically has played a role in monitoring district compliance with state and federal laws. They are currently responsible for monitoring local compliance with

special education, transitional bilingual education, federal civil rights requirements under Title VI and Title IX, programs in the areas of the Safe and Drug-Free Schools and Community Act, the Perkins Vocational Act, and Nutrition Programs and Services. These programs are being audited through its Program Quality Assurance Services unit. It can be argued logically that the role of monitoring district compliance of MERA should be returned to DOE. New York, Illinois, and other state education agencies have always had a cadre of experienced local and state educators to guide the lower achieving schools and districts in effective reform, plus another group of senior staff to do follow-up monitoring and reviews. Governors' offices play no direct role in these states. The question is whether MA DOE has the capacity to provide these services effectively. *At the very least, funds must be appropriated and the district accountability system developed by the DOE should be implemented as soon as possible.*

Department of Revenue Audits

In the midst of confusion over district accountability, the Massachusetts Department of Revenue has been auditing schools to ensure proper spending of education reform monies. This is a legitimate and important function. *However, it is not reasonable to expect a school district to undergo both a DOR and DOE audit in the same year unless it is a joint audit by the agencies. Audits are very time-intensive for schools, and every effort should be made not to disrupt the educational process. It is important, and should not be difficult, to have these branches of government coordinate their efforts.*

Impact of DOE Mandated District Plans

DOE requires data from schools on numerous initiatives, including student success plans, professional development plans, district plans, and pre- and post-test scores on individual students participating in state-funded MCAS remediation programs. Districts assert that they do not have the capacity to prepare all these plans and tests, let alone report on them to DOE. DOE has not used the data it receives to assess schools other than the ones it has identified as potentially under-performing. The research team's perusal of professional development and school improvement plans indicate that they vary considerably in quality from district to district. Districts would benefit from receiving feedback and assistance on these plans that they are expected to put into effect. School and district plans, particularly when developed by teams of teachers, parents, and administrators, are indicators of an administrator's ability to develop and articulate a shared vision and a systemic approach to education reform. These are leadership qualities which school site visits have shown to be strongly correlated to improved student achievement. The DOE has an important role to play in helping school administrators develop these leadership skills by putting together teams of school leaders who can coach others.

School Improvement Ratings

While the system for district accountability is in limbo, a system for rating individual school performance based on MCAS scores has been developed. School Performance Ratings are calculated every two years based on performance and improvement on MCAS for all grades and subject areas tested. School performance is evaluated based on the percentage of students "Failing" and the percentage of students scoring "Proficient"

and “Advanced” on MCAS. Improvement ratings are determined by comparing actual improvement to the expectations that were set by DOE using baseline results.

For each content area and for overall improvement, schools receive one of the following improvement ratings: *Failed to Meet* (more than one point below the expectation), *Approached* (within one point of the expectation), *Met* (within the expectation), or *Exceeded* (more than the expectation).

There are serious flaws in this system. For one, improvement expectations are determined by the number of points by which a district’s average MCAS score has increased. The number of points districts are required to grow was determined arbitrarily. It was not based on any research regarding how much growth is reasonable and appropriate to expect over the given amount of time. Many districts find the current expectations unrealistic. DOE should research the change process in schools and revise improvement expectations in accordance with findings.

A second issue in the school improvement ratings is classifying a school on the basis of one measure. *The determination of school improvement should be based on multiple factors such as are used in NEASC accreditation of schools. Other measures, including SAT, AP exams, and other nationally normed standardized test scores, college acceptance, employment, attendance, and drop-out rates, and course offerings are possible criteria to include. Process indicators that are believed to lead to improved student achievement such as professional development opportunities for teachers, certification of teachers, teacher attrition and class size should also be factors.*

Third, the improvement data is a comparison of different groups of students, rather than the growth of one group of students over time. The study team’s analysis of data indicated that MCAS results for any school in any grade vary considerably from one year to the next. In most cases, a school that had test scores rise from 1998 to 1999 saw a reduction in 2000, and vice versa. Relatively few schools at grades 4, 8 and 10 saw either increases or decreases both years.

One conclusion to draw from this analysis is that a testing regimen that compares one cohort of students to another cohort is not ideally suited to measuring school improvement. One obvious reason, familiar to any educator, is that classes differ from year to year. A school should not get credit because it has a particularly good crop of 4th graders one year, nor it should be pilloried because it has a particularly poor group the next. School improvement scores should be reported on the basis of comparing the same group of students from year to year.

The state should adopt a test data tracking system that compares the same cohort of students in a school from year to year.

Finally, community type should be considered in comparing performance of schools. The DOE has analyzed school enrollment by community type: urbanized centers, small rural communities, economic centers, residential suburbs, growth communities, economically developed suburbs, and resort/retirement/artistic communities. These

categories were used when the DOE administered the MA Educational Assessment System (MEAP). “Comparison Score Bands” enabled districts to compare themselves to other communities with similar socioeconomic conditions. This enabled them to seek help from those who were like them, and thus had credibility for them. *Comparing district and school performance and improvement within categories that differentiate between different types of communities would provide schools and districts with useful data, and would more readily identify models to which systems can relate.*

Impact of Transience on Test Scores

Urban schools experience a large turnover during the course of a school year. It is more common for a student to finish elementary school in a different school than one in which s/he started, than it is to finish in the original school. Currently, even if the student begins in a new school the same year that he/she takes the MCAS exam, the new student’s score is used to determine the school’s average score. In one school visited, where only 50 students were tested, eight students joined the class that year. This dramatically influenced the MCAS average for that year, and subsequently the school was rated “underachieving.” Without counting these children, the school would have “exceeded expectations.” *Schools should be allowed to report newcomers separately. Schools who have experienced a boundary change should display a large asterisk.*

Due to DOE’s improved capacity to collect data, future school results will include only those students who were enrolled in the school by October 1. While this will alleviate the problem to some degree, schools will still be responsible for the scores of 4th graders who may have entered the system in grade 3 and were two years behind, and 8th and 10th graders who have been in the system for a limited amount of time, and came in years behind. *As proposed in the education bills now going through Congress, DOE should track individual students and judge schools on the annual academic growth of those who stay in the school.*

DOE’s Use of District Data

DOE has improved its capacity to collect data. Until recently, much data was collected from districts, but it was not readily accessible and therefore not analyzed or used to identify district trends and needs. The DOE can now track all students in public schools and is in the process of collecting student data on grade level, attendance record, time in district, income status, migrant status, native language, English proficiency, bilingual education program status, post graduate plans, special education status, and career and technical program enrollment.

The DOE also has just completed development of its “data warehouse,” which contains easy-to-access district information on enrollment disaggregated by race, drop-out rates, attendance rates, student exclusions, plans of high school graduates, technology, actual spending as a percentage of foundation budget, per pupil expenditures, average teacher salary and SAT scores. The Accountability and Targeted Assistance Cluster uses this data in making decisions about under-performing schools. *This range of data should also be used to detect trends across the state and develop technical assistance in response to identified issues. It also could be used to identify individual districts with specific needs.*

Program Quality

While the DOE has developed numerous initiatives aimed at helping districts improve student achievement, there is currently no way of holding the DOE accountable for the success or failure of these initiatives. In much the same way that the districts are accountable for implementing educational reform, so too must DOE be accountable for the effectiveness of the various programs and initiatives.

The Legislature should include, with all program money allocated, a percentage (3% - 5%) of money for program evaluation. This evaluation should review how well DOE implements its programs, and how successful they prove to be in furthering student achievement.

VI. DISTRICT CAPACITY

Four capacity building strategies -- interpreting and using data, building teacher knowledge and skills, aligning curriculum and instruction, and targeting interventions on low-performing students and/or schools -- have been found to play a significant role in building teacher and school capacity, according to a policy brief by the Consortium for Policy Research in Education (CPRE) which researched 22 districts in eight states over two years²⁸: The team also found that the more successful districts in MA used these strategies well.

Use of Data

Basing educational decisions on data is a new practice in many MA school districts, facilitated by the wealth of MCAS data DOE has made available. Districts have access to individual student information, school and district scores, scores of subcategories, the test questions themselves, and the standards that the test questions are designed to assess. Massachusetts administrators are enthusiastic about this data. Almost all districts use it along with other local assessment results to determine their district's strengths and weaknesses. In many districts teachers use the MCAS questions that students have missed to learn where there are gaps in the curriculum. A few districts have hired data analysts to help with this process. Others have purchased technology designed to show trends and patterns. The DOE has also worked with some districts, through Project PALMS, to train school district teams on "data driven decision making." In most cases, however, district personnel are learning as they go, with little expert assistance. There is a need to train at least one person at the school level to be able to meet with school teams to review test results item by item, discuss progress over time, and identify patterns. The DOE is to be commended for making the MCAS data available to schools and providing

²⁸ *The District Role in Building Capacity: Four Strategies.* Consortium for Policy Research in Education, Policy briefs, RB-32 (September 2000).

the training they have. *DOE could be extremely helpful in facilitating more training on using data.*

Professional Development

The Legislature made a conscious decision to provide funds for professional development directly to school districts. With this decision, responsibility for building district capacity, and teacher capacity, through professional development was given to school districts.

As a result of MERA there has, indeed, been an explosion of professional development for teachers and administrators. According to those interviewed, there has been an increase in the number of teachers taking advantage of professional development activities, and an increase in the number of hours of professional development they take. In a recent survey 77% of administrators indicated an increase in the percent of the budget allocated to professional development since the passage of MERA.²⁹ For the 1999-2000 school year, an average of \$125 per pupil was spent directly on professional development. While this is less than the mandated \$175 per pupil, it does not include costs of substitute teachers to allow teachers to attend advanced training during the school day or other indirect costs. In many districts, the professional development offered has changed from one-shot presentations to extended, in-depth programs. Colleges and universities are offering more programs, and many other vendors have entered the field. DOE has sponsored summer content institutes for teachers. Generally, however, there are many questions about the effectiveness of professional development in improving instruction. In most cases, teacher participation is optional, occurs after school or on weekends, and is only partially funded by the school district. As a result, it is difficult to get an entire school staff to participate. Another issue is linking professional development to identified school needs based on good diagnostic data: some teachers complain about restrictions on choice of offerings, but in the most effective districts teachers appreciate the benefits of the new skills they develop and use in their classrooms

Concerns about the quality of professional development have been widespread for years. All eight states studied by CPRE created standards for professional development and applied them in their own technical assistance initiatives and in awarding grants to local districts.³⁰ While opportunities have greatly increased in MA, there is no recent overall plan at the state level for building teacher or administrator capacity through professional development, nor are there standards for professional development, or for assessing the quality of professional development activities. Districts are required to develop professional development plans, but these are not evaluated or used in any way by the state. In some districts they are seen simply as additional paperwork.

There is currently little quality control over professional development offerings, and virtually no research on its impact on student achievement. Furthermore, even with these new training opportunities, teachers throughout the state consistently decry the lack of

²⁹ Data was collected in a survey by U MA for use in this study.

³⁰ Diane Massell, (1998). *State Strategies for Building Local Capacity: Addressing the Needs of Standards-Based Reform.* (1998)

time that they are given for common planning time. This severely limits their ability to maximize benefits from their training experiences.

CPRE findings also support other research in criticizing the “one-shot-workshop with no follow-up” approach to professional development. There is interest in less traditional formats of professional learning. The most common alternatives identified in the study were:

- School-based support in the form of central office staff, resource teachers, mentor teachers, or full time professional development staff rotating among schools to provide assistance;
- Regular classroom teachers who are designated as teacher leaders and assigned, for example, to provide ongoing follow-up training for their colleagues who have attended workshops on a new instructional program.
- Teacher participation in developing instructional policies and tools such as performance-based assessments, scoring rubrics, curriculum, and standards.³¹

The research team also found a common desire among teachers for more in-house professional development, “bringing experts into my classroom to show me.”

While professional development remains a responsibility of local school districts, the state should play more of a leadership role in setting standards, coordinating information and addressing issues of quality control. *District professional development plans should be used to identify local needs and target support. The state should identify common needs so that districts could purchase consultant services on a more cost-effective basis. The state should also identify quality programs and facilitate networking of people with similar professional development interests in MA.*

An evaluation the effectiveness of professional development should be undertaken. Although professional development alone does not create change, consideration should be given to the conditions under which professional development is most effective. Questions to consider include: what kinds of organizational support help maximize the effectiveness of professional development? Is building based training more effective in improving student achievement than district-wide training? How should professional development programs be evaluated? Are outside or in-house experts more effective trainers, or what proportion of each?

Professional development must be a systemic process. It needs to be focused, tied to a shared vision, and should be data driven. It is most effective when it engages an entire school or school district, addresses needs identified by participating teachers and administrators, and allows teaching staffs to play a role in planning, designing, and implementing programs. *Efforts should be made to provide opportunities for effective teachers and administrators to train and/or coach others. Schools should promote a peer coaching or consulting teacher and administrator model where teachers and/or*

³¹ Diane Massell, (1998). *State Strategies for Building Local Capacity: Addressing the Needs of Standards-Based Reform.* (1998)

administrators are able to observe one another and provide data on student and teacher behaviors in a non-evaluative manner.

Finally, additional teacher time must be available to participate in more and better professional development. It is critical to successful education reform. While individual districts can try to collectively bargain for necessary extra teacher time in school, it would be far more effective for the Legislature to mandate and fund a longer school year. Otherwise, as one superintendent who did successfully bargain for a longer school day put it, “good schools become lighthouses but are not replicable.”

Curriculum Alignment

In almost all school districts teachers have been working to align curriculum to the curriculum frameworks. Some districts are farther along than others. Where the process is well underway or completed, there is more communication among teachers about teaching and learning and more consistency among district schools.

One of the clearest successes of MERA is that in many districts, efforts to align the curriculum with the frameworks have resulted in clear curriculum guidelines and well-articulated grade-level expectations for the first time. One superintendent of a high performing district shook his head and said, “I don’t know what we were doing before!” Teachers are enthusiastic about knowing what to expect of their new students each year, whether or not they have transferred schools within the system, and they are less tolerant of teachers who do not successfully adjust their curriculum according to district guidelines.

New curriculum resources are being purchased. Fifty seven percent (57%) of administrators surveyed³² indicated that over the past five years a higher percent of the school budget was allocated to curriculum and instruction than before.

Teachers in some schools are “mapping” their curriculum to ensure that lessons are aimed at mastering specific standards and that students are assessed in a variety of ways to see if they have met the standards. This standards-based approach to teaching enables schools to let parents and students know what students are responsible for learning, and enables teachers to work better together in teams.

Standards-based teaching and learning is beginning to show up in schools, but is not fully implemented. For example, many teachers do not make standards known to students in advance, do not assess learning continuously, or provide students with rubrics. These, and other standards-based practices should be encouraged by the DOE through grant monies, technical assistance, and models of exemplary programs.

³² Data was collected in a survey by U MA for use in this study.

Targeted Interventions: Low-Performing Schools and Students

Academic Support for At-Risk

The Legislature has provided \$20 million in fiscal years 1999 and 2000 and \$40 million for in fiscal year 2001 to extend learning time for students scoring in the “Failing” and “Needs Improvement” categories on the MCAS. This has provided a tremendous boost to school districts, enabling them to provide remediation during out-of-school and summer hours.

As a result of this initiative, a statewide average of close to 29 hours of additional instruction per student was provided during the school year. For the 1999-2000 school year programs, districts reported:

- 55% of students in English language arts programs showed gains in post-test results
- 53% of students in mathematics programs showed gains in post-test results;
- 43% of students in science programs showed gains in post-test results.

Several districts participating in these extra-support programs reported that the extra time with students and the ability to work with them in small group situations was extremely helpful. As participation in the program is generally voluntary, some districts have had difficulty getting students to come for remediation outside of school hours, particularly at the higher grade levels.

Impact of State Initiatives on District Capacity

The DOE has myriad initiatives underway to support MERA. These include the academic support services programs addressed above. It also includes early childhood education initiatives, adult and community learning programs, identification of effective schools, teacher recruitment initiatives, teacher induction and mentoring programs, administrator training institutes, and principal mentoring programs. Some of these are addressed elsewhere in this report (see pp 47-49 for teacher recruitment initiatives and teacher induction and mentoring programs).

With the combination of all of these initiatives, plus the state mandates to districts for district and school improvement plans, student success plans, professional development plans, regulations for MCAS remediation programs, and information required on grant proposals, districts feel micromanaged and overwhelmed with paperwork. Fulfilling these requirements takes a great deal of time, and many educators believe that it detracts from the work they need to do to improve student achievement.

DOE and the Legislature have required far too many reports, plans, and other data from schools on too many initiatives simultaneously. The Legislature should work with DOE to ensure that its concerns are being addressed, and allow DOE to coordinate district reporting requirements. It is critical that the DOE work more in partnership with the field. While the above initiatives should be addressed, DOE needs to limit its requirements of school districts so as not to overwhelm and alienate them. It needs to listen and respond to their feedback, and become more of a support and resource to them. DOE has taken steps in this direction, e.g. by listening to the field and altering grant funding cycles that were creating a year-end crunch in preparing proposals, and by

loosening restrictions on when remediation programs can take place. It would be helpful if DOE could identify or respond to specific needs of individual districts and provide targeted assistance. Districts whose students are performing well or making good progress should be able to work relatively independently of DOE if they prefer.

Systemic Change

Some districts have created district-wide visions and are approaching changes in curriculum and instruction systemically. These districts have based goals and plans on student performance data. Schools are expected to align site-based improvement plans with the district vision. Most successful districts do not try to accomplish everything at one time, avoiding the “innovation run amuck” model, according to one superintendent. They have carefully thought out long-range district improvement plans for increasing student achievement with specific, focused action steps, timelines, resource needs and benchmarks.

Time: An Obstacle to Change

Whether discussing professional development, curriculum development, instructional practices, teaching to standards, completing required paperwork, and/or supervising and evaluating staff, the major obstacle to change mentioned most often by teachers and administrators is time. More time is needed for planning, collaborating, analyzing data, conferencing with parents, and reflecting on the effectiveness of various programs and practices. More time is also needed for instruction.

The remedial MCAS programs are important for students who are not performing up to standards. They have been shown to effect gains in student achievement. However, not all students in need of assistance participate due to transportation problems, part-time jobs and other issues. Having a longer school year for all students would benefit all students. Instructional time has already been added to the school day through the Student Learning Time regulations adopted in 1994, mandating that elementary school children have 900 hours of instructional time, and high school students 990 hours. Sixty-six percent of 280 school administrators surveyed³³ indicated that instructional time has increased since education reform. This, however, may not be sufficient. Indeed, US schools provide students with significantly fewer days of instruction per year than other countries. Students in Japan, for example, attend school for 225 days. Students in MA attend school for 185 days. While districts could, at their own initiative, increase the length of the school year, this is unlikely to happen. A legislative mandate would be far more effective.

Students would benefit greatly from another month of school (200 days). Districts are also urged to increase the school day for teachers or add additional days to the school year just for teachers. There are no professions other than teaching where the professional is expected to be working directly with clients for 90% of the time on the job. Teachers are in desperate need of the planning and meeting time, especially with the additional tasks associated with implementation of a standards based curriculum.

³³ Data was collected in a survey by U MA for use in this study.

ROLES AND RESPONSIBILITIES

School Committee

The role of the school committee has changed significantly with the advent of education reform, particularly in larger districts. School committees are no longer involved in hiring and firing. Their role is to select a superintendent, review and approve policies, approve the school system budget, plan for growth and quality improvements, and review the overall performance of the schools. The Massachusetts Association of School Committees (MASC) reports that members have accepted the policy role and with few exceptions accept that staffing decisions are to be made by professionals.

There are still some districts where school committees behave as though the law has not changed. In these, indirect pressure is put on the superintendent to follow the wishes of the committee, especially with regard to hiring decisions. New members also join committees without a clear understanding of their role. While orientation sessions are available for new school committee members, not all attend. *The DOE should provide incentives to school committees to have all members participate in training programs on the role of school committee members and educational law.*

The Role of the Superintendent

The superintendent has more control over the school district than ever before and more responsibility. S/he is expected to be as knowledgeable about curriculum, instruction, and assessment as about finance, building maintenance, personnel, and public relations. He or she is also expected to lead a systemic reform process that will result in continuous growth and development for teachers, administrators, and students. With the removal of principals from unions, superintendents are now able to negotiate individual multi-year contracts with principals, with performance measures aligned to school improvement. Some superintendents have implemented compensation programs for principals offering from zero to five percent based on school success.

Despite education reform's efforts to clarify the superintendent's role as chief executive officer, superintendents continue to be hampered by old practices, specifically staffing issues. Most superintendents and principals have not found that their ability to dismiss ineffective teachers has been made easier by MERA. They indicate that reams of paperwork and endless processes are still required, and that arbitrators consistently side with the teacher and appear to be following pre-MERA criteria in these decisions. *The Legislature should strengthen the legal language to ensure that arbitrators make decisions for dismissal based on the criteria of the best interest of students and on state and district teacher performance standards. If necessary, DOE should challenge key findings in court to uphold the clear intention of MERA to allow districts to dismiss teachers for poor teaching performance.*

An additional issue is that some superintendents lack experience in strategic planning and systemic change. These superintendents try to make all changes simultaneously, resulting in confusion in the district and a lack of focus. They need assistance with implementation of district plans and would be greatly helped by having another superintendent coach and support them in this part of their work.

The Role of the Principal

Because removal of principals from collective bargaining has empowered the superintendent, according to MESPA and MASSP there are many instances where superintendents give principals a “take it or leave it” proposition rather than negotiate with them. Over 40% of principals are given contracts that are less than three years in duration. Some principals are not given any assurance of being rehired until the end of the school year. Principals feel they have been left without any job security and have little leverage with which to negotiate. Given the extreme difficulty of the job, and the continually growing responsibilities, principals find this extremely demoralizing.

The intent of MERA was to change the principal’s role to one of instructional leader. Additional responsibilities have come with this new role. Nine-one percent (91%) of principals surveyed by MESPA in 1998 reported that they are asked to attend up to 10 additional meetings per month since education reform. Thirty percent reported that up to 10 hours per week has been added to their week in implementation of the curriculum frameworks, and another 10% reported that up to 20 hours per week has been added.³⁴ Paperwork for the DOE has increased dramatically, and few principals have adequate support staff to handle it.

Even with these new responsibilities, 66% of respondents indicated that their most pressing time demand was related to their management function. In addition to providing instructional leadership, their jobs include implementation of safety policies, overseeing building maintenance, student assessments, staff supervision and evaluation, civil rights and harassment issues, child advocacy, special education, development of student handbooks and discipline with due process. They are also responsible for e-mail and Internet policies, construction, transportation, substitutes, crisis planning and management, school accounts, home schooling, DOE audits, attendance, school councils, and communications with parents and the community. For many, the demands of the job have become overwhelming and they eagerly await retirement.

Principals in most school districts do not have ample time or personnel for effective supervision and evaluation of teachers. Some principals, very committed to their role as instructional leaders, place supervision of teachers as their top priority. Many more go from crisis to crisis and have not carved out the time for meaningful supervision and evaluation. Consequently, the quality of the supervision and evaluation process varies from district to district, from systems where principals make multiple observations of teachers’ classrooms including weekly informal visits – to systems where no observations are required and the entire evaluation rests upon a teacher’s implementation of a professional development plan. Principals must be able to conduct authentic teacher evaluations based on multiple observations of teachers and other sources of data, including student work and teacher portfolios. Supervision and evaluation is part of collective bargaining agreements, which in some instances call for very limited classroom observations with prior notice to the teacher – provisions which do not facilitate effective evaluation. More effective approaches must be allowed.

³⁴ Massachusetts Elementary School Principals’ Association, “Survey of Principals,” Winter/Spring 1998.

Despite the bleak picture of the life of a principal under education reform, many principals of effective schools are enthusiastically committed to leading their schools to new heights. It is moving and inspiring to see these leaders tackle their jobs with passion, intelligence, and determination to ensure that all students can succeed.

As the responsibilities of the principal have increased, so has the need for both support and higher salaries. As teachers' salaries have risen, the gap between the salary of the principal and the salary of an experienced teacher has narrowed significantly in some districts, making the job less appealing. Districts should be encouraged to review the salaries of their principals and adjust them as needed.

Professional Development for Leadership

Some principals did not move their schools toward adopting the new frameworks or appropriate classroom practices until recently, believing that if they waited long enough "this, too, shall pass." Prior to MERA the principal's role was more structured around management functions. Many principals in all probability were never trained to be instructional leaders or to develop school improvement strategies and plans. In some districts, principals are learning about classroom practices by attending teacher workshops. This enables them to recognize and support teachers' growth and development. *Principals need more training opportunities and leadership institutes to help them become instructional leaders. This includes understanding what to look for in a standards-based environment, knowledge of the curriculum frameworks, and understanding the principles of systemic change.*

School Based Management

In accordance with MERA, the principal and faculty within a school have leeway to allocate funds, materials, and teacher time in the most appropriate fashion. For the most part, both high and low-achieving schools live within budget and decision-making formats not very different from the pre-reform days. According to the MESPA study, principals indicated that a principal's role in staff decision-making is limited by teacher contracts and district personnel policy. Contracts often limit the number of days in the school year, the amount of time teachers can be expected to stay after school, and the number of days available for teacher and staff professional development. Efforts to increase these hours or days are pitted against salary requests or salary scale improvements.

Too often the principal's capacity to hire the best-qualified teachers is limited by union contracts with seniority clauses. At times it is limited because the superintendent maintains the final decision-making authority and limits principals' choices, or because positions are shared across buildings in a district. Only 21% of elementary school principals clearly felt that hiring and dismissal authority had been strengthened by reform.³⁵

³⁵ Massachusetts Elementary School Principals' Association, "Survey of Principals," Winter/Spring 1998

Barely 13% of administrators strongly believe that they now have greater budget control or latitude under MERA.³⁶ Budget control and staffing decisions are the cornerstones of site-based management. This concept appears more a myth than a reality for many principals. There are only a handful of exceptions in the state aside from pilot or charter schools.

A few schools have been able to transcend the status quo. In one high poverty school, a principal has negotiated a lump sum budget for the school in return for high expectations. This well-integrated and very inclusive school has extended the school day for many students, scored high on MCAS exams, won tremendous parental support, and demonstrates what school site management might achieve. Models such as this should be shared with, and emulated by, other districts

School Site Councils

Several waves of school reform have given legitimacy to the school site council wherein teachers, parents and sometimes community representatives or secondary school students review the mission, vision, needs and priorities, school improvement plans, MCAS results, and other evaluations for the school. However, the school councils generally are not viewed as effective vehicles for school improvement, which was their intended function. This can be attributed to lack of training, finances, parental and community involvement, and role definition.

School council members are well intentioned, but there is little evidence that professional development funds have been expended for helping councils reach a high level of constructive involvement and performance. Councils are often unclear of their roles, and frustrated at their lack of authority. When they recommend new programs or initiatives, there is usually no money at their, or the principal's disposal to support their recommendations. Many communities have also had difficulty in interesting significant numbers of parents to participate in the councils.

Principals themselves have rarely been trained in consensus-building skills needed for this work. Councils can become another chore, another level of bureaucracy. In a few communities, the councils now provide better-prepared candidates for school committee, but not as well-seasoned or involved or informed as MERA intended in 1993. Their role is still in the early stages of development and not well monitored or understood.

If school councils are to have an impact on improving schools, they need to be strengthened through training opportunities, available discretionary funds, and multi-year school improvement plans which would provide continuity from year to year. In order to know how best to improve their effectiveness, a study on school councils should be conducted. Questions to consider include: do school councils impact student achievement? What are the characteristics of effective school councils? What kinds of training would help councils in their work? What kinds of structural changes would facilitate growth and development?

³⁶ Ibid

Training in consensus building, group process, and systemic change should also be available to principals to help them successfully lead these councils.

Communication to the Public

In many schools, few parents, even parent leaders and school council members, know very much about MERA and state expectations other than MCAS and high stakes assessments. The media has published a great deal of information on MCAS that alone, can be misleading regarding a school district's performance, failures and shortcomings. School districts have a professional requirement to use cable TV, local media, explanatory letters and publications mailed to homes, school fairs, exhibitions and other means of communication to explain what schools are doing constructively. Educational reform is a complex process for reaching higher standards of performance, not just test-taking and passing. Only a few school districts have responded creatively to the need to communicate the urgency of school reform initiatives.

Conclusions

School districts are increasingly aware of the importance of using data to make curriculum decisions. The use of MCAS in diagnosing student needs, however, must not be confused with using MCAS as if it were the curriculum itself.

Many school districts are well on their way to standardizing their curriculum to align with the frameworks. They have purchased new resources to support these changes, and are providing professional development for teachers. They now need to develop more workable district plans which can guide them to systemic change, find new ways to recruit teachers, increase pay of principals, increase the length of the school day, and create win-win relationships with unions.

The school is the most effective unit of change, as it has the most direct impact on student achievement. The move to create change at this level must be systematic and must engage the entire school community. At the school level, there is a growing understanding of the need for the school to work as a team: to have shared professional development opportunities, and time to meet, plan, and collaborate. The principal, as instructional leader at this level, must be supported in his or her demanding task.

Schools must have strong leaders, systemic plans, a clear and limited focus, and a belief that all kids can learn. Determining how to create and support these conditions should be a priority. DOE can also help principals and superintendents learn successful models and find more time in the day for teachers to work together. Just as superintendents can learn a lot from their colleagues, principals and teachers need assistance and support from their peers. DOE should continue and extend its support for collegial coaching.

Districts should be encouraged to provide the principal with adequate assistance. This includes both assistants who can take over building management functions and support personnel who can help with the paperwork. The DOE must help with convincing the public that adding more administration is necessary for the smooth functioning of the schools. The DOE can publish material explaining how the role of the principal has changed since MERA, what the many functions are which fall under the purview of the

principal, and by supporting the “Principal for a Day” program emanating out of Central MA. This program invites CEOs to shadow a principal for a day and reflect on the experience. Often CEOs leave flabbergasted at the expectations placed on a principal on any given day.

VII TEACHER CAPACITY

The State of Teachers

The current morale of MA teachers is extremely low. They are being asked to do a job that is more difficult than ever before, and to radically change the way they do it. They are expected to educate even the lowest performing students and to educate all students at higher levels than has ever been expected before. Yet, teachers do not feel supported or appreciated in their work. As one MA teacher recently noted:

While in Virginia each summer for four weeks, I read the [local paper]. Each day there is a positive article on educational issues. Instead of focusing on what the children cannot do, the articles focus on what the children can do and what improvements they have made. In Virginia, I am proud to tell people I am a teacher. In Massachusetts, I keep my profession a secret.³⁷

They have been told that anyone with content knowledge can do the job that they do. They feel that they have been bashed and battered in the media and by the Board of Education. Their competency has been questioned and they have been told that if their students score poorly on the MCAS, they are to blame. Many veteran teachers are looking forward to retiring as soon as they are able. They are also discouraging their children and other young people from following in their footsteps.

Teacher Shortage

While teacher morale is getting lower, the need for new teachers is growing. There is a serious shortage of qualified teachers in mathematics, physics, special education and foreign language. In 2000, 1,185 certification waivers were granted. Forty-three percent of these waivers were for teachers of special needs students. This means that some of our neediest students are being taught by teachers who lack the appropriate credentials. Nine percent of the waivers are for foreign language teachers, 5% for science teachers and 4% for mathematics teachers. For the first time in the memory of many educators, districts are raiding other districts for personnel. This is creating ill will between school districts and more teacher turnover. The need to recruit new teachers into the profession, to retain teachers in the field, and provide them with continuous support and training is more compelling than ever.

Recruitment and Retention of Teachers

The DOE and its Teacher Quality Enhancement Programs cluster have initiated several programs to recruit and retain teachers.

³⁷ Massachusetts middle school teacher

DOE Recruitment Programs

The Attracting Excellence to Teaching Program is a loan forgiveness program that provides annual reimbursement payments directly to qualified teachers to help defray costs from previously incurred student loans for undergraduate and/or graduate studies. For the 1998-99 school year, 555 public school teachers received a total of \$827,000 in funds for loan forgiveness. In the 1999-2000 school year, 700 teachers participated in the program. An estimated 900 teachers are expected to receive the award this year.

The *Massachusetts Institute for New Teachers (MINT)* program recruits mid-career people with strong content knowledge to teaching by offering them \$20,000 bonuses. In August 2000, 165 participants were added to the 59 participants who had completed MINT's training program. One hundred five of these participants were bonus recipients, 50 received scholarships, four were sponsored by Massachusetts school districts, and six sponsored themselves. An additional 226 people are slated to be trained this summer.

The DOE has taken some innovative steps to recruit new teachers in areas of shortages. One such program is the partnership with the *Kingdom of Spain* which brought 24 teachers from Spain to teach Spanish or social studies and science in Spanish to Spanish-speaking students in transitional bilingual education programs in Boston, Lawrence, Springfield, Chelsea, Milton and Westfield.

Tomorrow's Teacher Clubs provide \$13,800 to districts in grants of \$1200 for activities designed to encourage middle and high school students to go into teaching as a career.

Early Findings – A DOE report surveying principals who hired MA Signing Bonus/MA MINT recipients found that 84% of the principals rated their MINT/Bonus Recipient teachers as average or above average teachers, and 90% said they would hire another MINT graduate/Bonus Recipient if they had a vacancy. However, some principals interviewed reported more mixed experiences. Classroom management, in particular, is problematic for some. This is not unlike the experiences of any new teacher. However, the attrition rate among these new teachers is over 20%, twice that of other new teachers. This relatively high attrition rate may be due to insufficient preparation, as suggested in the responses of MINT/Bonus Recipients to a DOE survey. Many indicated that the seven-week summer training is not adequate preparation for them to go into schools. This comes as no surprise, as the knowledge base of teaching and learning is extremely complex and demands significantly more time to assimilate than the summer months permit. *Training for MINT/Bonus recipients needs to be extended during the school year, even beyond their work with mentors. It should include instruction on pedagogy, standards-based teaching and learning, matching student learning styles to instructional methodologies, classroom management techniques, developmental stages of children, effective communication with parents, etc. The program also must be very clear with applicants about all that teaching entails, including child development, classroom management, communication with parents, participation in building initiatives, and curriculum development.*

Additional Means of Recruiting Teachers

The Massachusetts Federation of Teachers' report, *Assuring Teacher Quality for the 21st Century*³⁸, recommends the development of certification programs for paraprofessionals and substitute teachers to add to the teacher pool. The report also recommends exploring ways to take advantage of the experience and talents of retirees without creating economic difficulties for them. The Teacher Retirement Board would need to review the retirement law and propose changes to provisions that would be disincentives for retired teachers to work. These additional avenues of recruitment should be explored.

Creating differential salaries in accordance to market needs has also been suggested. Currently, schools are competing for people with mathematics and science backgrounds who can easily command twice a teacher's salary in the corporate world. *Administrators searching for new recruits would welcome legislation that would enable them to compete with the private sector on a more equal playing field by responding to the principles of supply and demand.*

Retaining Teachers

As many as 30% of teachers leave teaching during their initial five years of teaching.³⁹ They cite many for leaving other than salaries.

“The reasons most often given by these teachers are low pay; lack of respect for teachers by students, parents, the public; a bureaucracy that does not regard them as professionals; inability to teach effectively in an unsafe and undisciplined environment; burdensome and time-consuming paper work and non-educational tasks; constant teacher bashing in the media; working conditions that, in some cases, are outright harmful to their health; and many other instances where school districts fail to provide the necessary educational resources.”⁴⁰

In no other field where there is an expectation of on-going communication, completion of paperwork, collaboration, and planning time are people expected to accomplish these tasks with no time built into their schedule, no office, limited access to copy machines, paper, and other office supplies, and no telephone. Yet we routinely have these expectations of teachers while holding them accountable for teaching children six hours a day. *Teachers must be treated as the professionals they are if they are to remain in teaching. Working conditions must be improved. Teachers need time, space, and resources to do their job effectively.* One effective principal says his main job is to support teachers through necessary changes. He “treats teachers the way they want to be treated,” and gets more from them in the end.

³⁸ *The MA Federation of Teachers' Perspective: Assuring Teacher Quality for the 21st Century*. 2001.

³⁹ Scherer, Marge, *Perspectives*. Educational Leadership. ASCD. 56:88, 1999

⁴⁰ *The MA Federation of Teachers' Perspective*: 9

Incentives for Teachers to Stay in Teaching

It is time to think not only about recruiting new teachers, but also about creating incentives for the talented teachers in the field to continue to teach. The DOE has begun to create incentives, but these are in the early stages of development.

Induction and Mentoring Programs

Teachers who have been involved in induction and mentoring programs are twice as likely to remain in the profession as those who have not. Within the last three years, with assistance from DOE funding, many districts in the Commonwealth have created mentoring and induction programs. There has been an unevenness in their quality and they have differed greatly in expectations of participants, training, and program goals.

Beginning July 2001 all school districts will be required to have mentoring and induction programs for new teachers. Districts vary greatly in their knowledge of what constitutes an effective program. DOE has an important role to play in helping schools requesting assistance. However, the DOE must also be mindful that some schools do not need their assistance, and assistance in the form of mandates not well received. *DOE should avoid regulating how districts set up their mentoring and induction programs but should provide guidance and assistance upon request.*

Master Teacher Program

Master teachers are teachers who have been recognized for their outstanding performance. As teacher leaders, they provide technical assistance to other teachers through modeling, coaching, joint planning, and other collegial activities. Master teachers are eligible for a \$5,000 bonus for up to 10 years. There are now 200 master teachers in MA. Under the 12 to 62 Plan, the DOE is planning to develop a corps of 1,000 master teachers in MA by 2003. One current route to obtaining master teacher status is to achieve certification from the National Board for Professional Teaching Standards and mentor an apprentice teacher. DOE is to be commended for providing funding and leadership in this area. MA recently has increased the number of nationally certified teachers from 75 to 185.

DOE is considering developing a Master Teacher test of its own, rather than using the National Board for Professional Teaching Standards. *Given the time, money, and controversy over both MCAS exam and the current teacher tests (see below), and given the numerous initiatives already being undertaken by the DOE, it is recommended that the National Board for Professional Teaching Standards continue to be used for the identification of master teachers. This test, though intensive and expensive, is highly regarded, recognized nationally, and tested for reliability and validity.*

Career Paths

DOE's Teacher Career Advancement Program is designed to develop innovative professional career ladders for outstanding veteran classroom teachers as an incentive to keep them in teaching. It is currently being piloted in eight schools in the Commonwealth. This is potentially a very important initiative as there are currently no career paths for teachers. If a teacher wishes to increase his or her salary after reaching the top of the teacher salary schedule, he/she must leave teaching for administration, a serious disincentive for talented professionals to stay in the field.

School districts must be actively encouraged to create career ladders for teachers. Master teachers and others who have been recognized for their leadership skills and expertise must have time built into their schedule to visit other classrooms, model effective teaching strategies for their colleagues, and provide and play an active role in determining professional development needs for the district. These teachers could receive 11 month contracts to train teachers and develop curriculum and training materials for the district. Salaries could be differentiated on the basis of skills and performance.

Teacher Quality

Effective Teaching Standards

The DOE first issued guidelines for effective teaching and administrative standards in 1995. Districts were required to develop local performance standards in alignment with the state guidelines. Supervision and evaluation practices were expected to reflect the new standards. Every district was required to file its evaluation procedures and performance standards with the DOE. If necessary, districts were to engage in binding arbitration to reach local agreement on these standards.

Much to the dismay of the field, the decision was made to revise the standards in 2000, as permitted by law. However, these guidelines have now been in flux for over a year. The first revision that was released was not made in collaboration with the field. DOE is now working with representatives of school administrators and teachers to remedy this. However, the interruption of standards already in place, and the delay in the revision disrupts a critical piece of teacher accountability. This is another example of midstream changes that make it difficult for districts to stay on track and move forward in their reform efforts.

Collaboration with Higher Education

To ensure that new teachers are well prepared, the DOE is also working with the Board of Higher Education to revamp pre-service programs as well. Preservice grants will provide \$700,000 to higher education institutes to redesign pre-service education for teachers. A research study is needed to look at higher education's contribution to education reform, and to look at effective models of K12/higher education in other states.

Teacher Tests

There continues to be some controversy over the Teacher Competency Test. A number of respondents complained that the test includes questions that have no bearing on an individual's ability to teach. This view is most strongly held in relation to the elementary school subject test, which, by necessity, is very broad in scope. While more preservice teachers are passing the test now than when it first came out, the failure rate (39%) is still high. Questions concerning the tests' validity continue to be raised.

A teacher's academic knowledge base is critical. His/her ability to convey the information to students in a meaningful way is also critical. Years of research on student achievement, effective schools, and classroom management overwhelmingly speak to the importance of instructional strategies in reaching students and stimulating the learning

process. This practical knowledge is currently not a part of the teacher test, but in order to become certified a candidate must pass a performance evaluation conducted either by the college or through his/her alternative route to certification. This performance assessment, however, is not standardized and there is no assurance of consistency statewide.

Policy makers should consider using Praxis I, Praxis II, and Praxis III. These are nationally validated teacher examinations which include an academic skills test to test academic skills (Praxis I), a graduate level test that assesses: subject mastery and pedagogical skills including curriculum planning, instructional design, and assessing student learning (Praxis II) and classroom performance for beginning teachers (Praxis III).

At one time DOE considered using the nationally validated Praxis tests. These had the disadvantage, however, of not being customized to MA teacher standards. They do have the advantage, however, of being nationally validated and of including an assessment of academics, subject expertise, pedagogical knowledge, and a performance component.

Diagnostic Testing of Certain Mathematics Teachers

Of graver concern than the new teacher test is diagnostic assessment of middle and high school mathematics teachers with greater than 30% failure rates on the MCAS mathematics test. Teachers must be held accountable for students' continuous improvement. Using the MCAS score as a criteria for deciding that the fault for poor performance lies in a particular teacher's skills completely disregards the differences in achievement levels of students entering a teacher's classroom. It also neglects to look at trends over time and other factors that have a bearing on student achievement. This is a misuse of MCAS. It also discourages teachers from being where they are most needed: in poor performing schools. As one teacher acknowledged: "If, as a math teacher, I will be assessed in this way, I will transfer to a wealthier district where students come to school better prepared. They will pass the test without my changing my teaching, and I will be regarded as successful."

There is a place for a diagnostic teacher test. That place is with an administrator who has reason to question a teacher's knowledge in the field. This question of teacher competency should be determined by multiple sources of data, including observations, student work, teacher conferences, and classroom assignments. A state-mandated test based solely on student achievement on one standardized test only further demoralizes the field.

VIII. SCHOOL FINANCE

Introduction

The primary financial goals of the 1993 education reform law were to bring spending in all school districts up to the foundation budget spending goal and to reduce the local property tax disparities associated with achieving this goal.

This review of Massachusetts school finance in early 2001 therefore begins with an assessment of how well the state has met these two goals.

Increased spending is not an end in itself; the ultimate goal is to improve student performance. The review therefore looks at the MCAS results to date and uses these results to consider the adequacy of the original spending goal.

Before evaluating the MERA formulas, however, the wealth and poverty disparities across the state will be considered.

Sources of Inequity

The school funding formulas of the 1993 reform law – like all state funding formulas – have to deal with the two underlying sources of inequity across cities and towns – some have more property wealth than others, and some have a higher percentage of low-income students. There can be no doubt that it costs far more per student to give students from low-income neighborhoods a chance at educational excellence. Absent state aid, cities with low property wealth and high poverty would have a double tax burden if they tried to provide anything approaching equal educational outcomes.

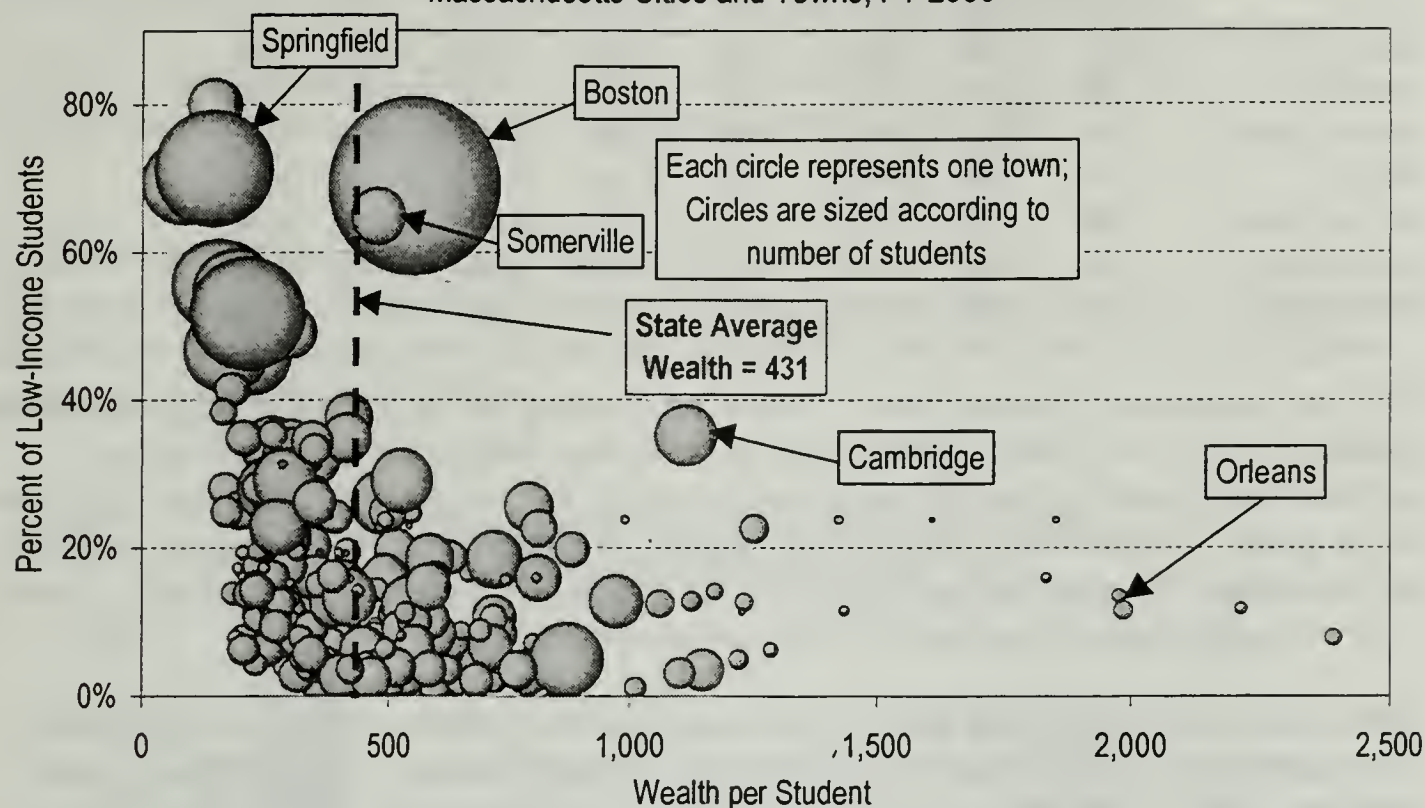
Chart 5 below illustrates the variation in property wealth per student and poverty percentages across the 351 Massachusetts cities and towns.⁴¹ Each circle represents one school district; the circle sizes are proportional to district enrollment. The vertical position of each circle indicates the district's poverty percent (as measured by the proportion of students eligible for federal free and reduced cost lunch programs): the horizontal position indicates property wealth per student.

⁴¹ Throughout this paper, the analysis is focused on cities and towns, not on school districts. In all cases, students, spending, and test results in regional districts are allocated back to member cities and towns. This approach has several advantages – it provides a roughly equal balance between elementary, high school, and vocational students and it allows us to integrate spending analysis with property wealth and tax rates.

Chart 5

Poverty Pct vs Wealth per Student

Massachusetts Cities and Towns, FY 2000



The high-poverty, low-income cities (Lynn, Lawrence, Lowell, Springfield, Brockton) are the larger circles in the upper-left-hand corner of the chart. They have poverty rates of 50% or more; their property wealth per student is \$200,000 or less. Boston has a very high poverty rate; because of its large commercial property base downtown, its property wealth per student is slightly above the state average.

At the other end of the scale, there are a handful of very wealthy communities with \$2,000 or more per student of equalized valuation per student, such as Orleans and other Cape towns. The higher a town's property wealth, the less likely it is to have a high poverty enrollment. Cambridge is a bit of an exception to this rule; it has a poverty rate approaching 40% and property wealth more than 2 ½ times the state average.

While this analysis will occasionally make use of charts that display information for every city and town, it has been helpful to summarize this information by dividing cities and towns into six major groups. These groups, and a basic summary of their enrollment, wealth, poverty, and spending, is shown in Table 1 below.

Table 1 - Characteristics of Six Town Groups

Group	Districts	Students	Poverty Percent	Wealth Per Stud	Spend per Stud	Spend Adj Stud	Found Stud	MCAS Score
State Total	351	948	26%	431	7,218	6,400	6,388	42%
Wealthiest	88	169	11%	835	8,162	7,742	6,003	43%
Mid-High Wealth	86	222	12%	476	6,908	6,511	6,060	46%
Boston	1	65	69%	552	8,572	6,372	7,646	28%
Mid-Low Wealth	88	178	15%	344	6,705	6,242	6,105	42%
Low Wealth	76	145	19%	252	6,456	5,896	6,112	40%
High Poverty	12	170	58%	166	7,358	5,703	7,250	27%

With two exceptions, the groups are formed by dividing the cities into 4 groups based on property wealth per student. One exception is Boston, which would otherwise be included in the mid-high wealth range but has much higher poverty rates than other towns in this group. Because they have a large number of students and because their problems are so extreme, the very high-poverty districts – those with poverty rates of 40% or more – have been separated from the rest of lowest wealth quartile.

Table 1 shows that very high poverty rates are found in Boston and the 12 other cities. The incidence of poverty even in the other lowest-wealth towns is well below the state average of 26%. As one would expect, wealth per student varies dramatically, from \$166,000 per student in the high-poverty cities to \$835,000 in the top quartile. Spending per student is actually higher in the high-poverty cities (and in Boston) than in any group other than the wealthiest quartile; this reflects the success of the education reform's priority to raise spending in these communities.

Adjusted enrollment is calculated by assigning a weight of 1.5 to each low-income student. When this is done, spending per adjusted student is lowest in the high-poverty and other low-wealth communities; they are spending about 10% less than the mid-high towns.

Table 1 shows how the foundation budget was deliberately made higher for high-poverty cities and towns. The state's targeted per-pupil spending is about \$1,200 per student higher – 20% - in the high poverty towns than in the wealthiest half of the state's communities.

Finally, Table 1 shows how each group's students performed on the state's MCAS scores. This table shows performance on the English and mathematics tests in the spring of 2000. The Department of Education basically grades the MCAS tests by dividing student results into four groups – Failure, Needs Improvement, Proficient, and Advanced. To help readers interpret the scores, they have been normalized so that a score of 25% means that the average student is on the border between "Failure" and "Needs Improvement"; a score of 50% means that the average students is on the border between "Needs Improvement" and "Proficient." A score of 75% would be at the bottom of the "Advanced" range. In Boston and the high-poverty cities, the average score is just barely above the failing range. In the rest of the state, the average score is in the upper end of the "Needs Improvement" category. Interestingly, while the wealthiest quarter of the

state's communities spend over \$1,000 more per student than those in the upper-middle range, and while they have slightly fewer if their students in poverty, their average test results are actually somewhat lower than those in the upper middle towns.

With this background in place, the next question to explore is how successful have the MERA formulas been in bringing spending to the goals set in 1993.

MEETING THE FOUNDATION BUDGET GOAL

The governor and the Legislature kept their commitment to fully fund the 1993 education reform law. As a result, spending reached 100% of foundation in each of our six town groups, as shown in Chart 6 below.

Chart 6

Spending as Percent of Foundation

1993 and 2000, by Town Groups

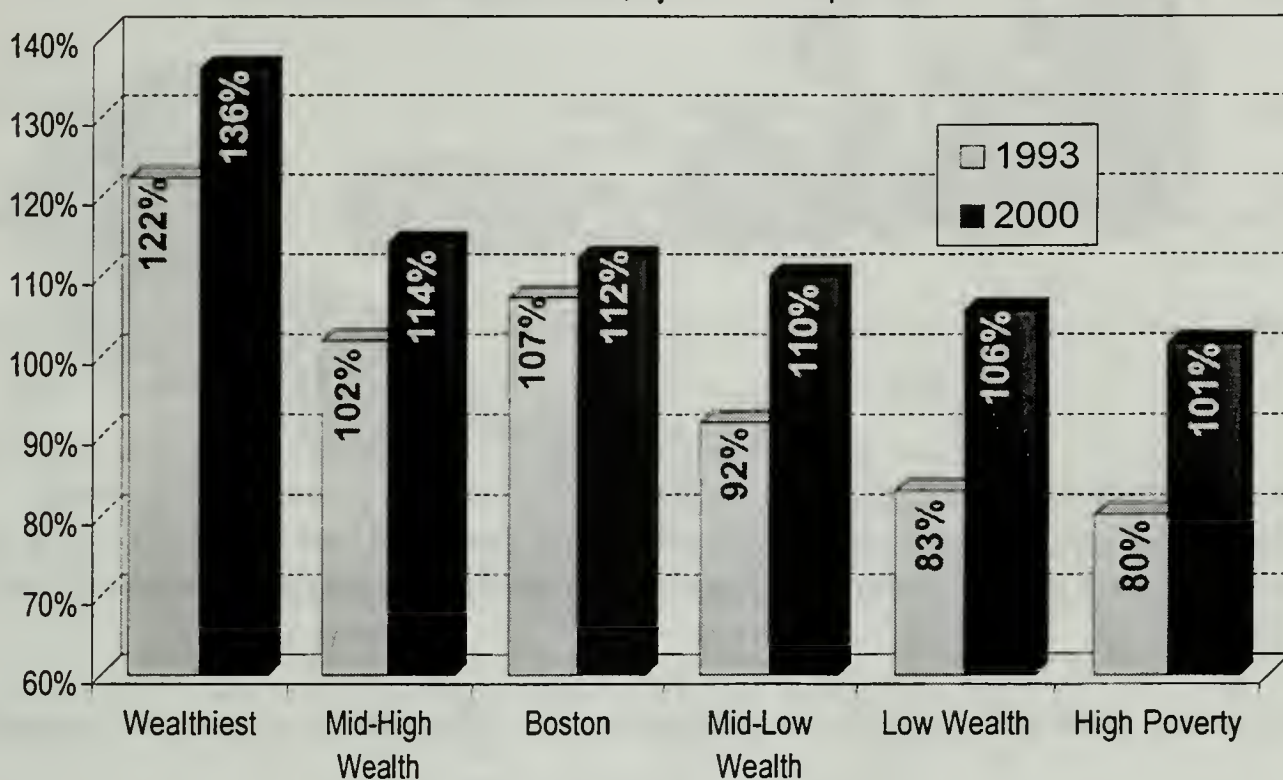
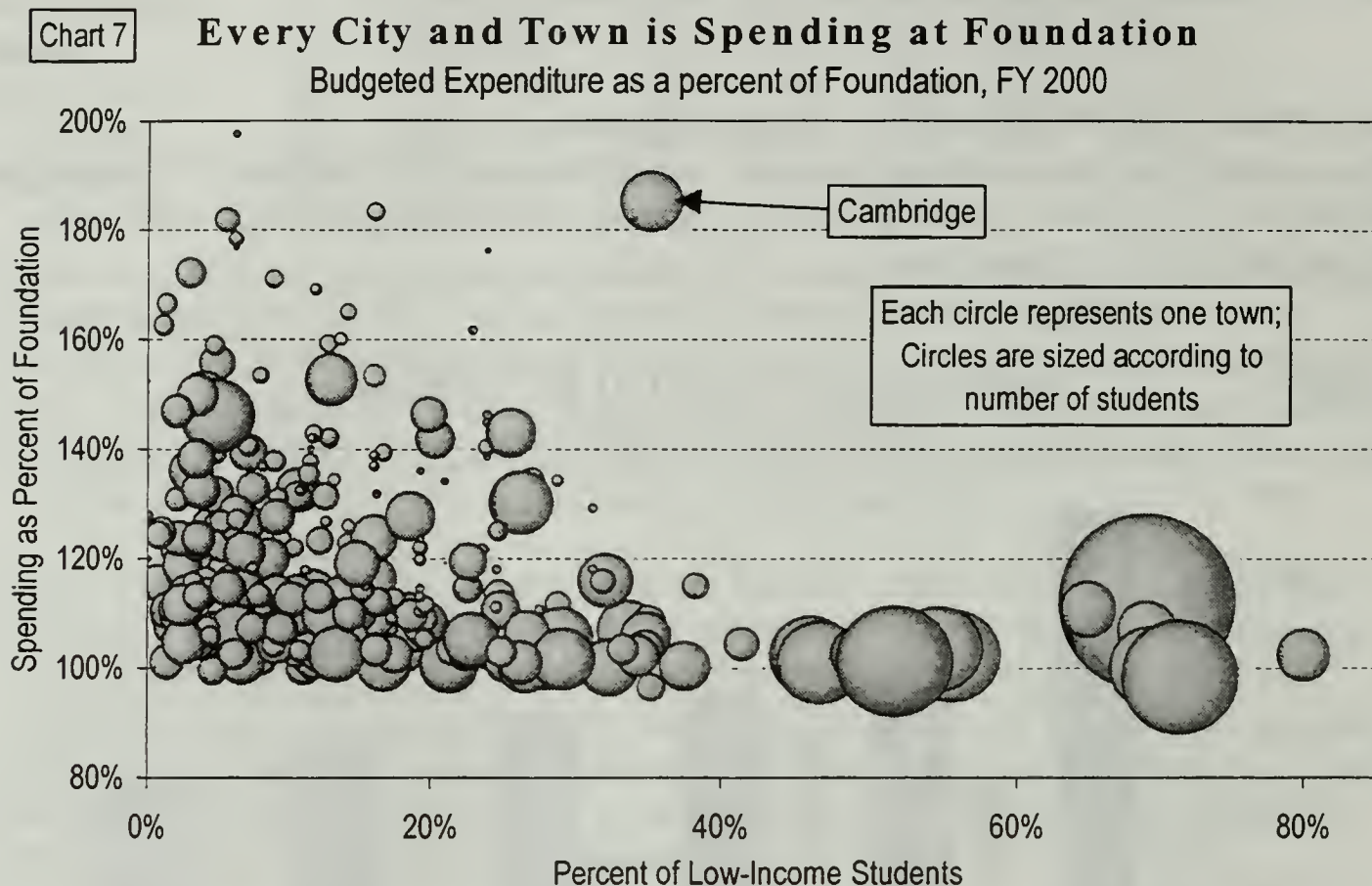


Chart six is based on school budgets prepared for FY 2000 and includes not only the spending required under the reform law, but also any extra spending that towns choose to do. Spending is up relative to foundation in each of the town groups. Since the foundation budget is adjusted for enrollment and inflation, spending relative to foundation is a good measure of whether a town is increasing its inflation-adjusted per-pupil spending. The spending results reported in Chart 6 are interesting in light of complaints from wealthier districts that school spending has suffered during the reform period. While this may be true in individual communities, total spending has risen faster than the foundation budget (which itself rises with inflation and enrollment) even in the wealthy districts, which have argued they receive insufficient state aid.

Just because average spending is at or above foundation in each of these groups does not necessarily mean that the foundation spending goal has been reached in every individual city and town. As can be seen in Chart 7, however, *every city and town spending is at or above foundation*.



In this era of cynicism about government's ability to keep its promises, it is worth pausing to celebrate the fact that Massachusetts met the goal it set for itself 8 years ago. Whatever its other strengths and weaknesses, the spending formula achieved this key objective.

Table 2 below gives a fuller financial picture for FY 2000, using our six town groupings.

Table 2 - Funding Increases since 1993

Group	Spending per Student			Exp % Found		State Aid per Stud				Aid % Found	
	93	2000	% Ch	93	2000	93	2000	Ch	% Ch	93	2000
Total	5,259	7,218	37%	97%	113%	1,578	2,958	1,380	87%	29%	46%
Wealthiest	6,318	8,162	29%	122%	136%	512	1,034	521	102%	10%	17%
Mid-High Wealth	5,283	6,908	31%	102%	114%	875	1,581	706	81%	17%	26%
Boston	6,702	8,572	28%	107%	112%	1,071	2,866	1,795	168%	17%	37%
Mid-Low Wealth	4,767	6,705	41%	92%	110%	1,484	2,770	1,286	87%	28%	45%
Low Wealth	4,388	6,456	47%	83%	106%	2,088	3,964	1,877	90%	40%	65%
High Poverty	4,896	7,358	50%	80%	101%	3,457	6,046	2,589	75%	57%	83%

The per-pupil spending increase is nicely graded across our six district types, with spending up 50% in the high-poverty towns but up only 29% in the richest communities.

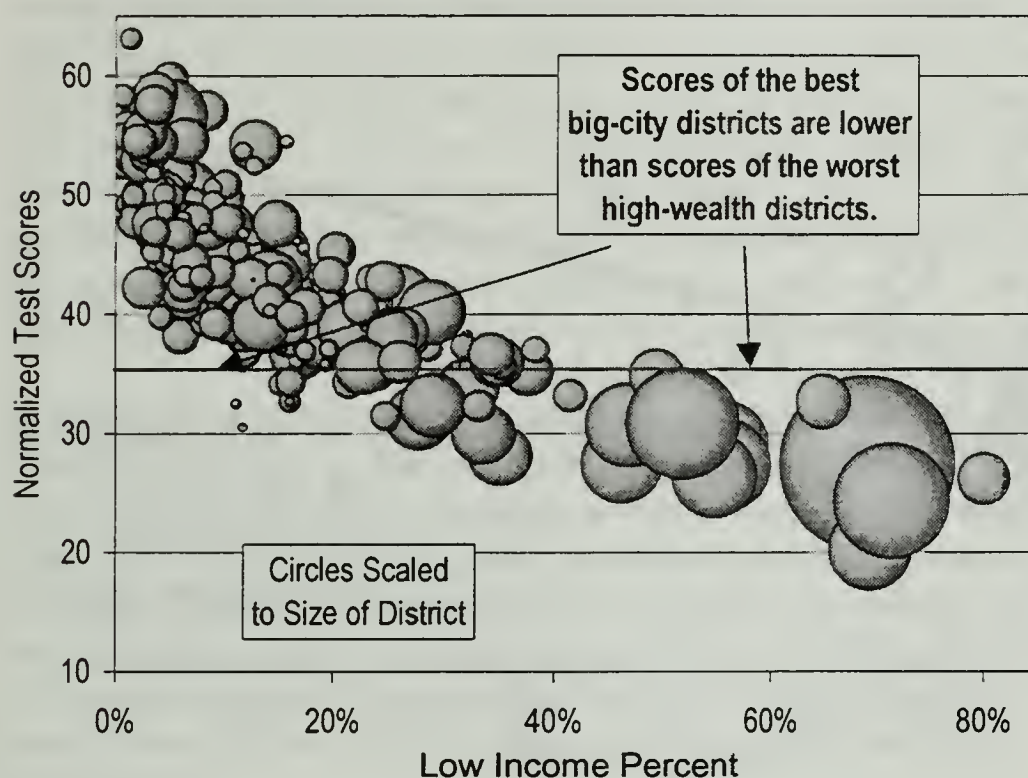
State aid per student has almost doubled (up 87%) – an increase of \$1,360 per pupil. Again, the increases are nicely scaled, with the largest dollar increases going to the high-poverty cities and the lowest increases to the wealthiest suburbs. Contrary to the common impression that wealthier towns have been shortchanged, the largest percentage increases in state aid have actually occurred in the wealthiest towns. State aid has risen as a percent of the foundation budget in each of the six town groupings.

SPENDING AND TEST RESULTS

What are the implications of the poverty-test result analysis for school spending goals? MCAS results are uniformly low for high-poverty districts. We see this in Chart 8. Scores in every single one of the big-city districts are lower than the worst scoring town with student poverty rates less than 15%.

Chart 8

Test Scores and Poverty Massachusetts Districts, 1999-2000



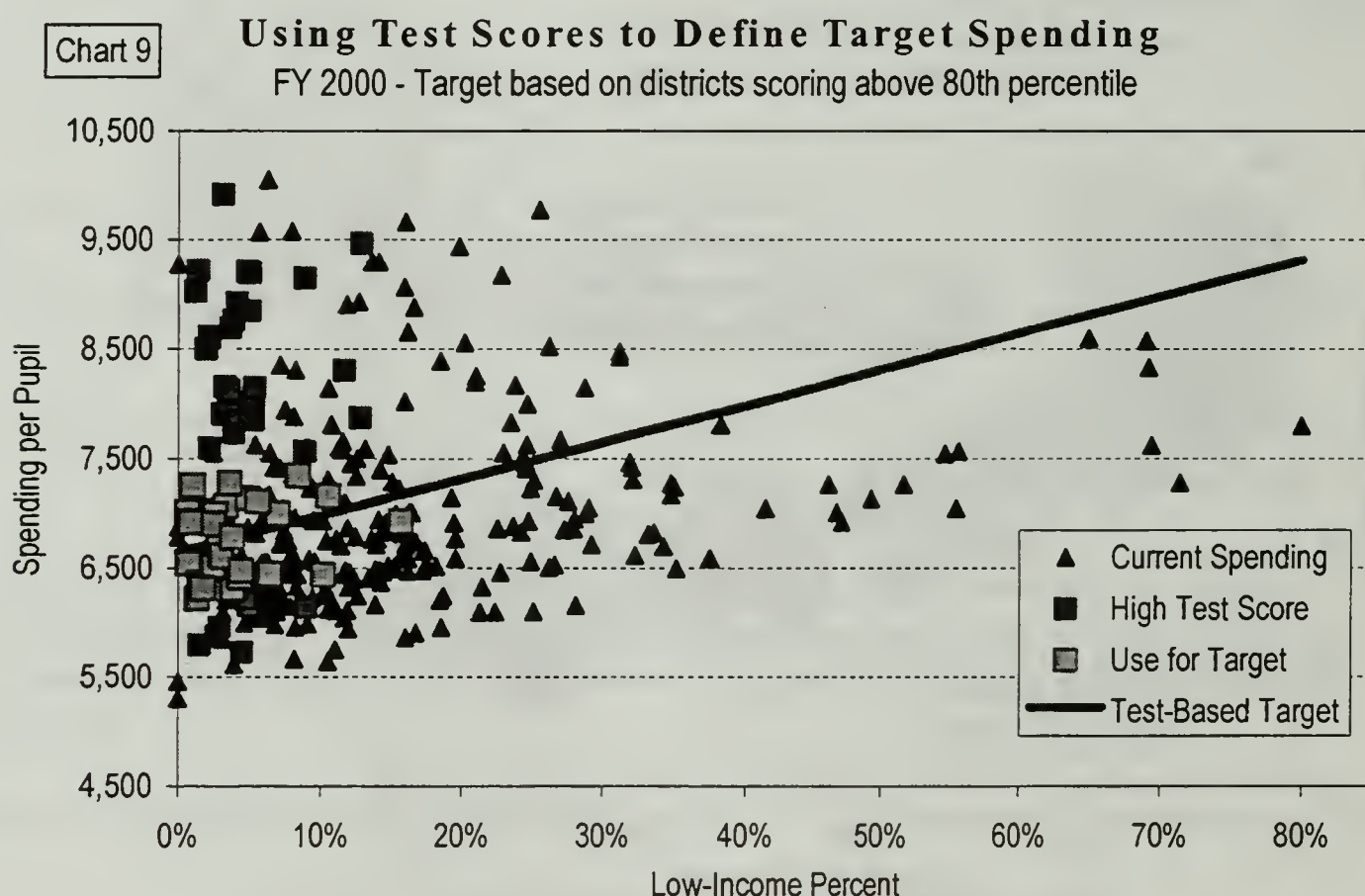
At the individual school level, however, there is considerable variation in educational results, even for schools with similar demographics. For elementary schools with 80 to 90% of students in poverty, adjusted failure rates range from a low of 40% to a high of 85%. While it is not clear how district spending translates into individual school budgets, it is clear that the high-poverty districts in which these schools are located are all spending just about at foundation. Thus, it seems certain that factors other than spending account for these differences. Charts 2,3, and 4, which appear earlier in the report, show individual school results in relation to poverty.

Since there are no low-income schools or districts with scores near any reasonable long-term goal, it is hard to escape the conclusion that low income areas need more money to reduce class sizes, provide extra time in the school day and the school year, give teachers

additional training, and deal with the social, emotional, and family problems these youngsters bring with them to school.

Taking a closer look at the spending patterns in the most successful Massachusetts school districts might shed some light on what is required.⁴² While spending does not guarantee success, it is helpful to see how much successful districts are spending and compare this to the current foundation.

Chart 9 below shows town spending in relation to poverty incidence for all Massachusetts cities and towns. The 20% of Massachusetts towns with the highest MCAS scores (adjusted scores above 49.3, and therefore at or marginally below the proficient range) are shown in green or pink squares.



All but a handful of these successful districts have poverty rates under 10%, and there are **NO** districts with poverty above 18% that also have high test scores.

A few high-scoring, low-poverty towns have high spending rates and, on average, towns with the highest test scores tend to spend a bit more (for towns with poverty under 10%, those with scores above 49.3 spend \$7,376 per pupil while those with lower scores average \$6,688). Still, a close look at chart 10 shows that there are high spending low-poverty towns that aren't in the top-test group and a large number of modest-spending

⁴² This analysis builds on a suggestion from John Augenblick, head of the well-known school finance consulting firm Augenblick & Meyers

low-poverty towns that test quite well. It cannot be argued that very high spending is a pre-requisite for success, at least in low-poverty towns.

A more useful approach is to consider what successful towns actually spend. The spending goal for all communities could then be related to actual spending of successful towns. Since there are a large number of low-poverty, more frugal yet successful towns, it is fair to conclude that very high spending levels are not a necessary condition for success. Any spending target should be based on the more frugal (although not quite the lowest spending) of the high-test towns. This can be done by ranking the high-test towns by spending per adjusted pupil (that is, by a measure that requires more spending for low-income students) and by excluding the lowest spending 10% and the highest spending 40% (shown in pink on the chart). The remaining high-test towns – those spending near but not quite at the bottom of the range for high-test towns – are shown in green. On average, these towns spend \$6,776 per pupil. This is some 17% higher than their foundation budgets, which average \$5,775.

Measuring this spending in terms of adjusted students – by taking into account extra spending needs of low-income students – provides the basis for putting together a spending goal for all cities and towns. Only 3.9% of the students in these high-scoring districts are poor. Giving each low-income student an additional weight of 50%, their spending per adjusted pupil works out to \$6,647. The red line in Chart 10 shows a spending standard – an alternative to the foundation budget – based on these districts, giving each low-income student an additional weight of 50%. For districts with a poverty rate of 60%, this simple standard would suggest a spending goal of \$8,500 per pupil.

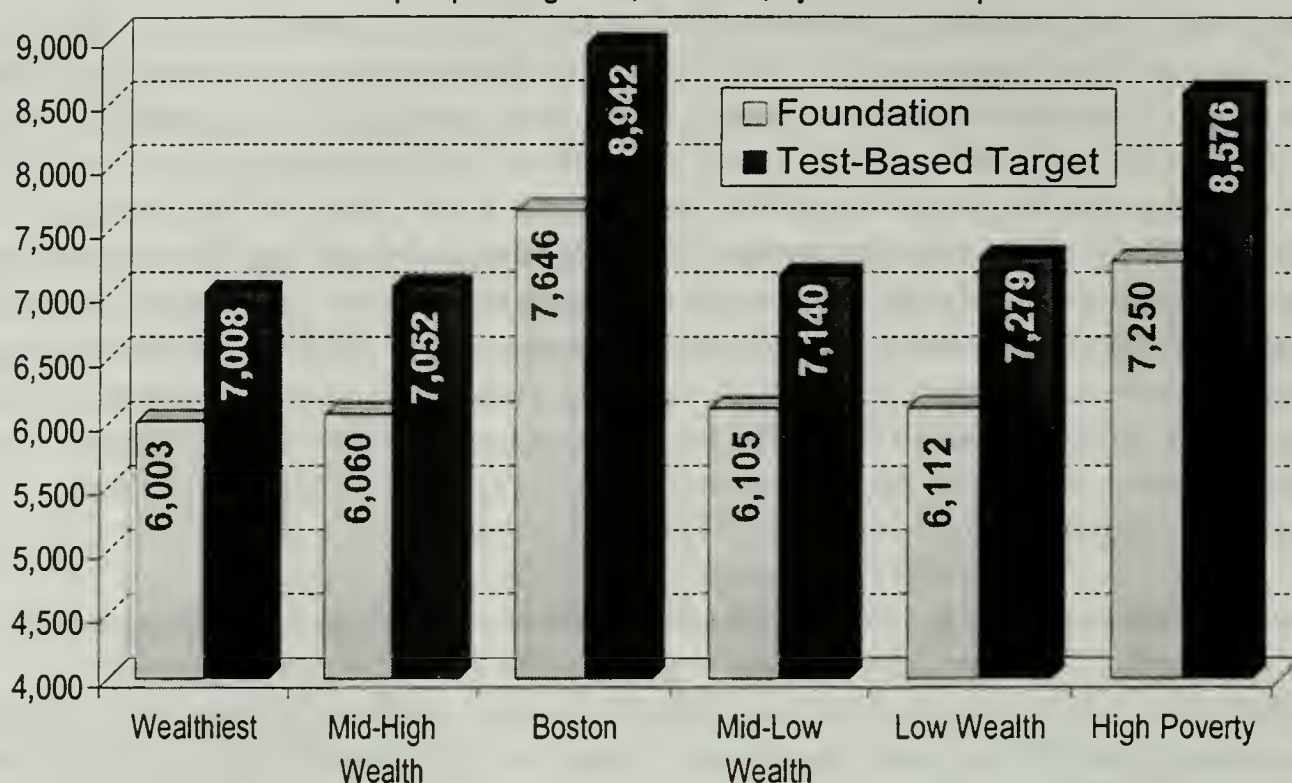
As can be seen in the chart, this spending standard is \$1,000 or more per-pupil above what the high-poverty districts are actually spending. Based as it is on the experience of more frugal but successful districts, and adjusting as it does for the impact of poverty, it is not an unreasonable goal. Still, since there are no high-scoring high-poverty districts (this is true not only in Massachusetts but across the country), there is no evidence to verify that this is (or is not) enough money to allow high-poverty districts to succeed. Given results to date, it seems clear that the 50% extra weight given in this formula to low-income students is not too high; there is no empirical way to determine whether it is high enough.

Chart 11 below shows the average foundation budget per-pupil in each of the six groupings and compares this with the test-based spending goal described above. For the wealthiest districts, the foundation budget is \$6,000. A close look at Chart 10 above shows that no more than 4 or 5 of the high-test towns spend as little as this. This reinforces the notion that the foundation budget is not high enough to reflect the actual spending of successful districts.

Chart 10

Foundation Budget vs Test-Based Target

Per-Pupil Spending Goal, FY 2000, by Town Groups

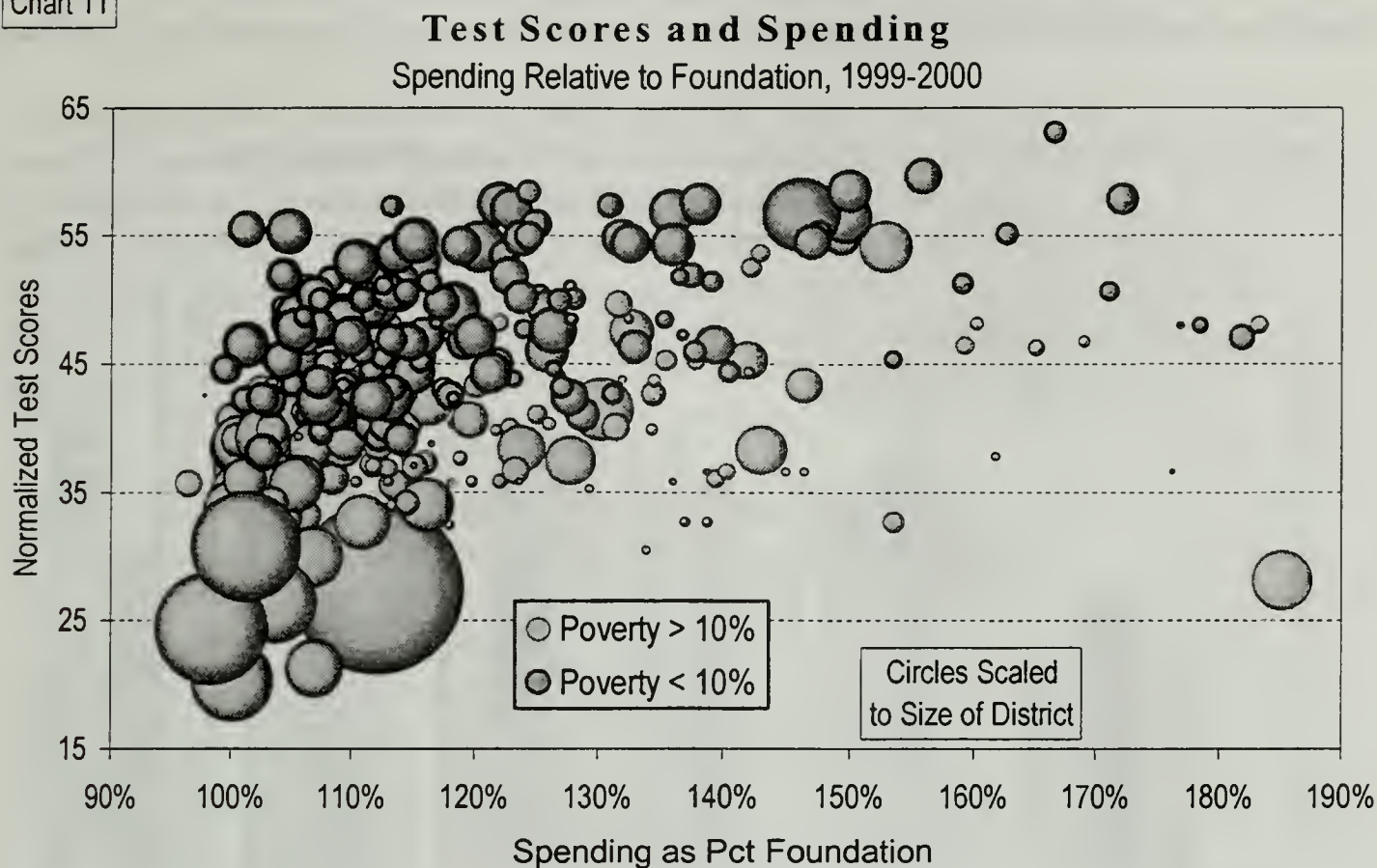


One final way to look at spending and test results is to compare towns' MCAS performance with their spending. This is done in chart 11 below, with each district's spending (expressed as a percent of its foundation budget) on the horizontal axis and its normalized test score on the vertical axis (As explained above, a normalized score of 25 – corresponding to 220 – means the average student is borderline between failing and “needs improvement”; a normalized score of 50 means the average student is borderline between “proficient” and “needs improvement”). The foundation budget is higher on a per-pupil basis for high-poverty districts, so a high-poverty district spending at 110% of foundation will be spending more per student than a low-poverty district also spending 10% above its foundation.

Leaving aside high-spending but low-performing Cambridge (in the lower right-hand corner of Chart 11), there is a general correlation between higher test scores and higher spending as a percent of foundation. Once spending reaches about 117% of foundation, there are few districts with normalized test scores below 35 (that is, average performance in the lower part of the “needs improvement” range).

Chart 11 shows low-poverty districts in orange. The relationship between spending and performance is not so strong amongst these towns, but even here a close look shows that most of the sizable towns with scores under 45 are spending less than 115% of foundation. Conversely, only a handful of low-poverty towns, and these generally small in size, spend more than 115% of foundation and have scores below 45.

Chart 11



This approach cannot tell us whether the foundation budget gives the appropriate amount of additional funding for low-income students. But since few if any high-scoring districts spend as low as the foundation, it strongly suggests the foundation budget is too low.

A simple reading of the chart would suggest that the foundation budget should be raised by 15 to 17%. However, most educators explain the persistence of unacceptably high test scores despite increased spending by suggesting – plausibly – that it takes a long time for changes in standards and instruction to impact test scores. This suggests that test scores are likely to rise over the next few years as a result of changes already implemented.

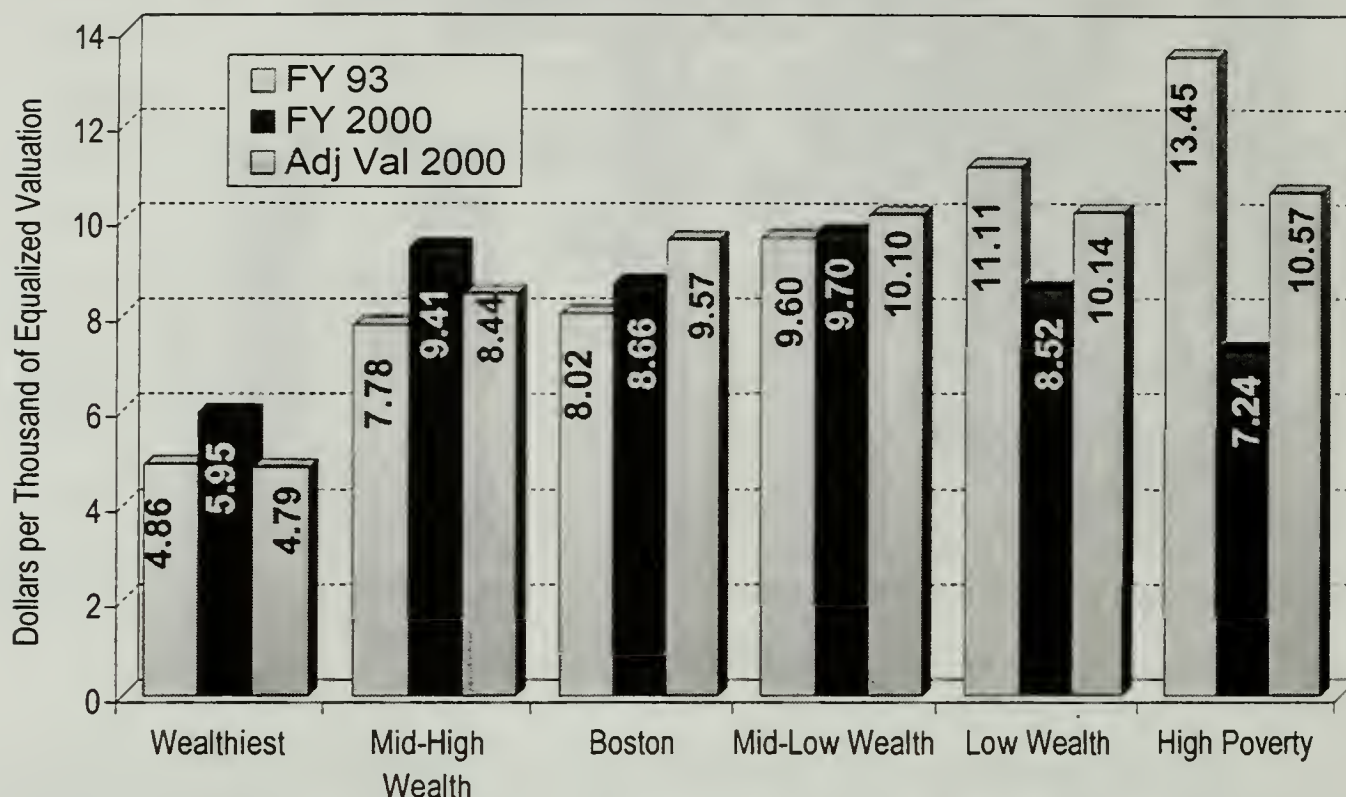
The foundation budget should be raised by something like 5 to 7% over the next 4 years. This should be regarded as an interim increase. At that time, a future foundation budget review commission should consider whether further increases are required. In doing so, it should look at spending (in relation to foundation) by the more frugal districts that show reasonably high test results.

TAX FAIRNESS

Although the major purpose of the funding formulas in the 1993 reform law was to bring school spending to foundation, a secondary purpose was to decrease the extent of inequity in local tax effort. A reasonable way to measure the degree of inequity is to look at the local property tax rates required, net of state aid, to achieve foundation-level budgets. A comparison of the efforts required back in 1993 and in more recently in 2000,

as shown for our six town groups in Chart 12 below, shows that Massachusetts has made significant strides in the right direction.

Chart 12 Tax Fairness - Tax Rates Needed for Foundation
Local Tax Effort to Reach Foundation, net of State Aid



In 1993, the wealthiest districts (on average) needed a tax rate of \$4.86 to spend at foundation; the high poverty cities needed a tax rate of \$13.45. By FY 2000, this gap was all but eliminated, as the high poverty cities needed only \$7.24 while the wealthiest suburbs needed \$5.95. Foundation tax rates for FY 2000, shown in dark blue on chart 13, were actually highest for the middle wealth towns and fell off in the lower-wealth cities and towns. This occurred because the state standard for ability to pay is not based on equalized property values, but on “adjusted valuation,” which is a town’s equalized valuation multiplied by the ratio of its per-capita income to the state average.⁴³

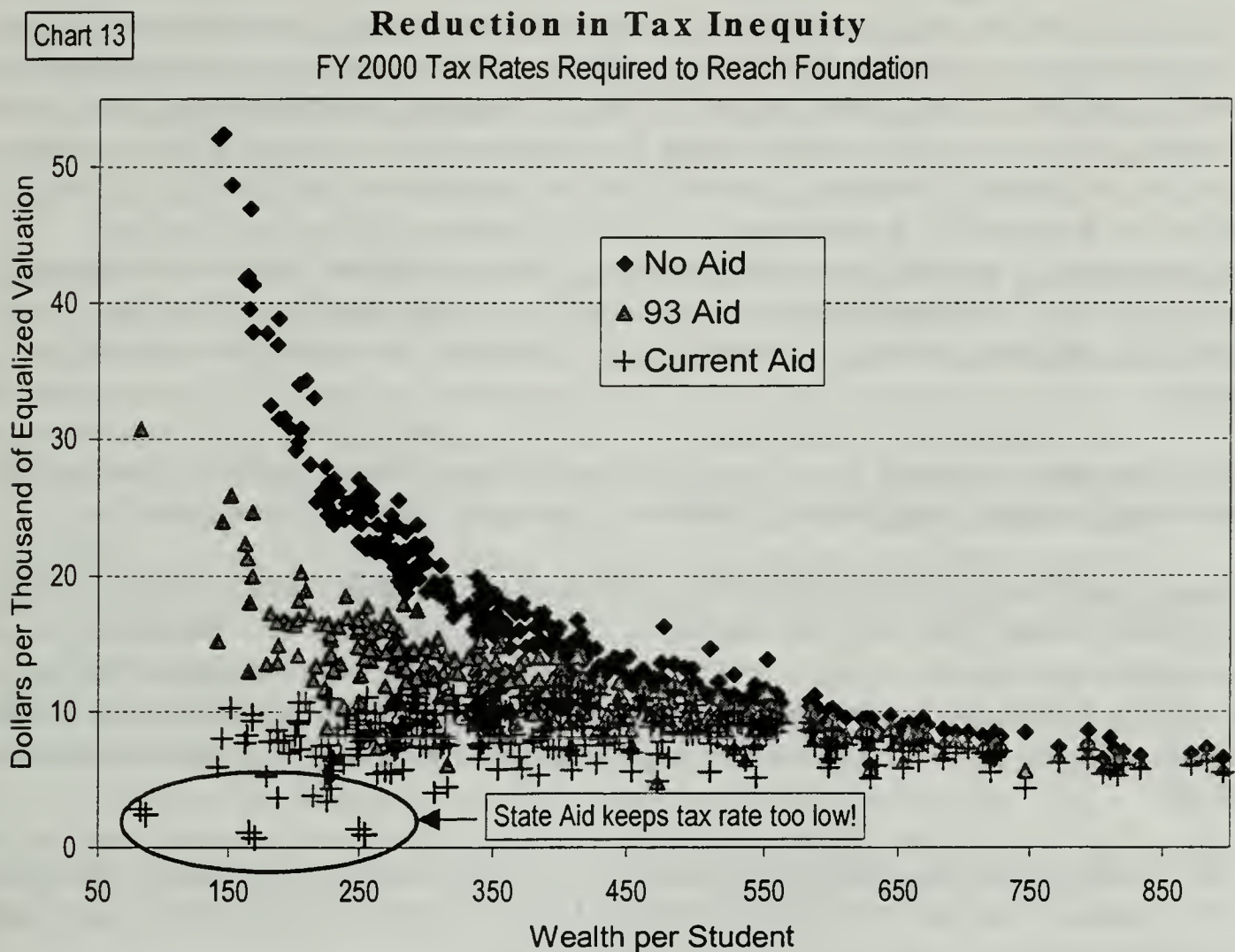
For example, Lowell’s per-capita, as used in the formula, is about 25% lower than the state average. Therefore, Lowell’s \$2.7 billion of property value is counted as \$2 billion, and a tax rate of \$10.28 per thousand of equalized valuation counts in the formula as a tax rate of \$13.94 per thousand of adjusted valuation. The FY 2000 tax rates needed to get to foundation, as used in the funding formula, are shown in green in Chart 13. As the chart indicates, these tax rates are roughly equal (at about \$10 per thousand) for the middle wealth and poorer communities.

The equalization of these tax rates, when averaged across each of the six wealth groups, is a positive outcome of the funding formulas. What is true on average across a group,

⁴³ Since this section of the report was drafted, the Governor has proposed a modified definition of adjusted valuation, which applies the income adjustment only to the residential portion of a town’s property wealth, and which uses DOR data to determine relative income levels.

however, may not be true for individual communities. To get the complete picture, we need an examination of the tax rates required of individual cities and towns.

To understand fully what role state aid plays, it is helpful to look at the tax rates that would be needed in the complete absence of state aid to reach foundation, as shown by the diamonds in Chart 13 (dark blue). Lawrence's tax rate would be \$91 (so high it is not shown on the chart); for other very poor cities the required rates would be in the range of \$40 to \$50. As town wealth grows, required tax rates fall, until towns with about \$550,000 per student of valuation could afford a foundation budget with a tax rate of about \$10.



Had state aid in FY 2000 borne the same relationship to the foundation budget as in 1993, required tax rates would have been as shown by the triangles in the chart (colored green). While still unequal (ranging from \$30 in Lawrence and the high \$20s in other poor cities to \$5 or so for suburbs like Lexington, Marblehead, and Needham, the 1993 aid program already went a considerable way toward reducing disparities in foundation-required tax rates.

Finally, the crosses in Chart 13 (red) show that the FY 2000 aid distribution goes even further toward evening out tax differences. Local tax rates required to reach foundation generally run from a low of \$5 to a high of \$12. Cities and towns with tax rates above \$11 are generally high-growth suburbs, such as Ashland, Billerica, Chelmsford,

Framingham, Holliston, Mansfield, and Medway. Revere, Salem, Haverhill, Lowell, and Worcester also have tax rates at or near \$11.

Why do these disparities – relatively small though they may be – occur within a formula designed to reduce them? One major reason has to do with Proposition 2 ½. Most American states have an equalization program broadly similar to the one in Massachusetts – the state sets a per-pupil level of financial support (the foundation budget) and sets a minimum tax effort required of every school district (our standard of effort). In other states, this local tax effort is uniform statewide – so many dollars of local tax contribution per thousand dollars of equalized valuation. The state pays every district its foundation amount, minus the required local contribution.

This simple process was not followed in Massachusetts, because it might have required cities and towns to increase their local contributions by a percentage amount greater than the Proposition 2 ½ levy limit. Massachusetts did start with a uniform standard of effort – that is, the target tax rate was the same for all towns. But in subsequent years each town was expected to increase its contribution in proportion to the growth in its local revenues, as limited by Proposition 2 ½. This increased contribution is required regardless of the growth (or decline) in average property values. For towns with rising property values, this approach means a generally lower tax rate; for cities where valuations are rising slowly or even falling, it means that the required tax rate will be high.

Discrepancies in required tax rates can also result from differences in enrollment growth, particularly among wealthier communities. This issue will be discussed shortly.

Paradoxically, none of the higher tax communities are the ones making the most vocal efforts to increase state aid. Barnstable, on Cape Cod, which has been particularly vocal in requesting more state help, would have needed a FY 2000 tax rate of only \$6.67 to reach foundation; the comparable figure for Yarmouth was \$5.32, for Orleans \$2.12, for Chatham \$1.67, and for Falmouth \$6.10. These were well below the average statewide of \$7.96.

The tax equity problem does not center on these low-tax Cape towns; rather it has to do with helping cities and towns like Worcester, Lowell, Ashland, and Framingham, which needed tax rates well above \$10 to get to foundation.

Putting a cap on the required tax effort, as Governor Cellucci proposed, would be a useful step to address these inequities. To help towns struggling with large debt payments for school construction, the cap should apply to the sum of excess debt and required contribution. A town with large debt payments would then have its operating contribution reduced by the excess debt amount, with state aid filling in the gap.

Chart 13 also shows that there are a few cities and towns that receive too much aid – aid which allows them to reduce their school tax rate to unreasonably low levels. Athol actually receives state aid greater than its entire foundation budget; were it to fund its

schools at the foundation level, it would be giving unused state aid back to its taxpayers. Similarly, Holyoke's school tax rate at foundation would be \$1.11, Lawrence's \$2.83. Athol's neighbors down the road in Orange tax themselves at \$7.71 to get to foundation. Like Athol, Orange has low property wealth, a high incidence of poverty, and per-capita income well below the state average. Why should Orange taxpayers contribute state taxes to help Athol run a public school system at no cost to local taxpayers? Why should citizens of Lowell and Haverhill (both with tax rates over \$10) support neighboring Lawrence's tax rate under \$3?

The aid that keeps these tax rates artificially low – overburden aid – was originally supposed to be phased out, requiring Athol, Lawrence, and Holyoke to raise their tax effort to a level commensurate with that of their neighbors. Every year, the Legislature has suspended this provision, so that the state continued to provide the aid necessary to maintain these very low tax rates while bringing spending to foundation levels in these towns. The money spent to subsidize these very low tax rates would be better spent on increasing spending levels in the high-poverty districts or reducing tax rates in high-tax towns.

The approach embodied in this year's House Ways and Means report is a good one. Any city or town with a required local tax effort less than, 80% of the state average (the average is \$8; 80% of this would be a tax effort of \$6.50) would be required to add to the increase normally required an additional local contribution toward school equal. This extra amount would not be subject to the normal Proposition 2 ½ levy limit. The increases would continue until the city or town reached the tax floor. Proposition 2 ½ was meant to keep local officials from imposing large tax increases without public approval; it was presumably not intended to force everyone else in Massachusetts to subsidize indefinitely Athol's failure to pay virtually any of the costs of its local schools.

WHAT IS FAIR?

MERA contemplated a 7-year transition period, during which state aid would increase until every school district was spending at foundation. A common misconception was that the formula expired after 7 years and would need to be re-authorized. The definitions and requirements of the formula are permanent. Nonetheless, the end of the MERA transition period (in FY 2000) makes this a reasonable time to consider fundamental changes in the formula.

In the last few years, the Legislature has appropriated more than the minimum amounts required by the funding formula. Unfortunately, it did not actually change the formulas to be consistent with this increased funding. As a result, most cities and towns now receive more money than can be justified by the statutory formula or, indeed, by any reasonable definition of fairness. The goal has been to give everyone an increase – and one that they would regard as adequate of “fair”. Generally speaking, when people call for a “fairer” formula, they really mean increasing state aid for their community.

Massachusetts has gone a long way back toward the days before MERA – when aid amounts were based on arbitrary additions to a long-forgotten formula, so that all aid amounts are arbitrary and there is no perceived fairness or objectivity in the system.

The state’s first priority should be to develop a definition of tax and aid fairness that an objective observer (one not concerned primarily with the tax rate or school spending in a particular town or legislative district) could explain and would regard as reasonable.

The structure of the funding formula itself points to a reasonable definition – that every child should receive an education funded at least at the foundation level, that the foundation level should be higher in districts with large concentrations of low-income children, and that the local tax effort required to fund this education should be as nearly equal across cities and towns as possible. As the paper demonstrates, Massachusetts has made considerable progress toward achieving this goal.

The primary purpose of state aid should be to make up the difference between the foundation budget and some reasonable local tax effort. The required local tax rate should be kept lower than some ceiling (at, e.g., twice the state average tax rate) and higher than some reasonable floor (at, e.g., 80% of the state average tax rate), as proposed by the governor and the House.

Most states use a foundation formula roughly comparable to the one in MERA, and in most of those states that single goal alone is sufficient. In Massachusetts, almost all wealthy towns already receive more than enough aid to keep their required tax rates below – and often well below – the proposed tax floor of \$6.50. Nonetheless, some of the most insistent voices have come from wealthy communities, which argue that the low aid amounts they receive per-pupil are not fair.

Table 3 - Wealthy and Poor Comparison

	High Wealth	Cape Cod	High Poverty
Per-Pupil Exp	8,162	6,721	7,358
Exp% Found	136%	118%	101%
Tax Rate	8.53	5.59	7.89
Aid per Pupil	1,034	1,131	6,046
Poverty %	10.8%	15.8%	58.0%
MCAS Score	43.5	44.9	27.3

Fairness should be measured in the broader context, as in Table 3. Consider the wealthiest 88 towns, or the 15 Cape Cod towns, in comparison to the 12 high-poverty cities. Per-pupil spending is higher in the wealthy towns and slightly lower on the Cape. Relative to foundation, however, the wealthy towns spend 36% above, the Cape towns 18% above, and the cities only 1% above. The tax rate is slightly higher in the

wealthy towns and about one third less on the Cape. The cities have 58% of their students in poverty and an average MCAS score just barely above failing. Poverty rates are 11% in the wealthy towns, 16% on the Cape, and MCAS scores are just slightly below proficient.

To be sure, per-student aid is almost six times higher in the cities. But taking the picture as a whole, the wealthier towns have better-funded school systems and far better educational results, with similar or lower taxes. Perhaps it is not surprising that there is no exodus of parents from wealthy or Cape towns to move to the high-poverty cities to “enjoy” the far higher state aid. Taking tax rates, poverty percentages, and educational results into account, it is hard to see what the Cape towns or other wealthy suburbs are objecting to – they have higher spending, lower taxes, better results, and fewer students from poverty backgrounds.

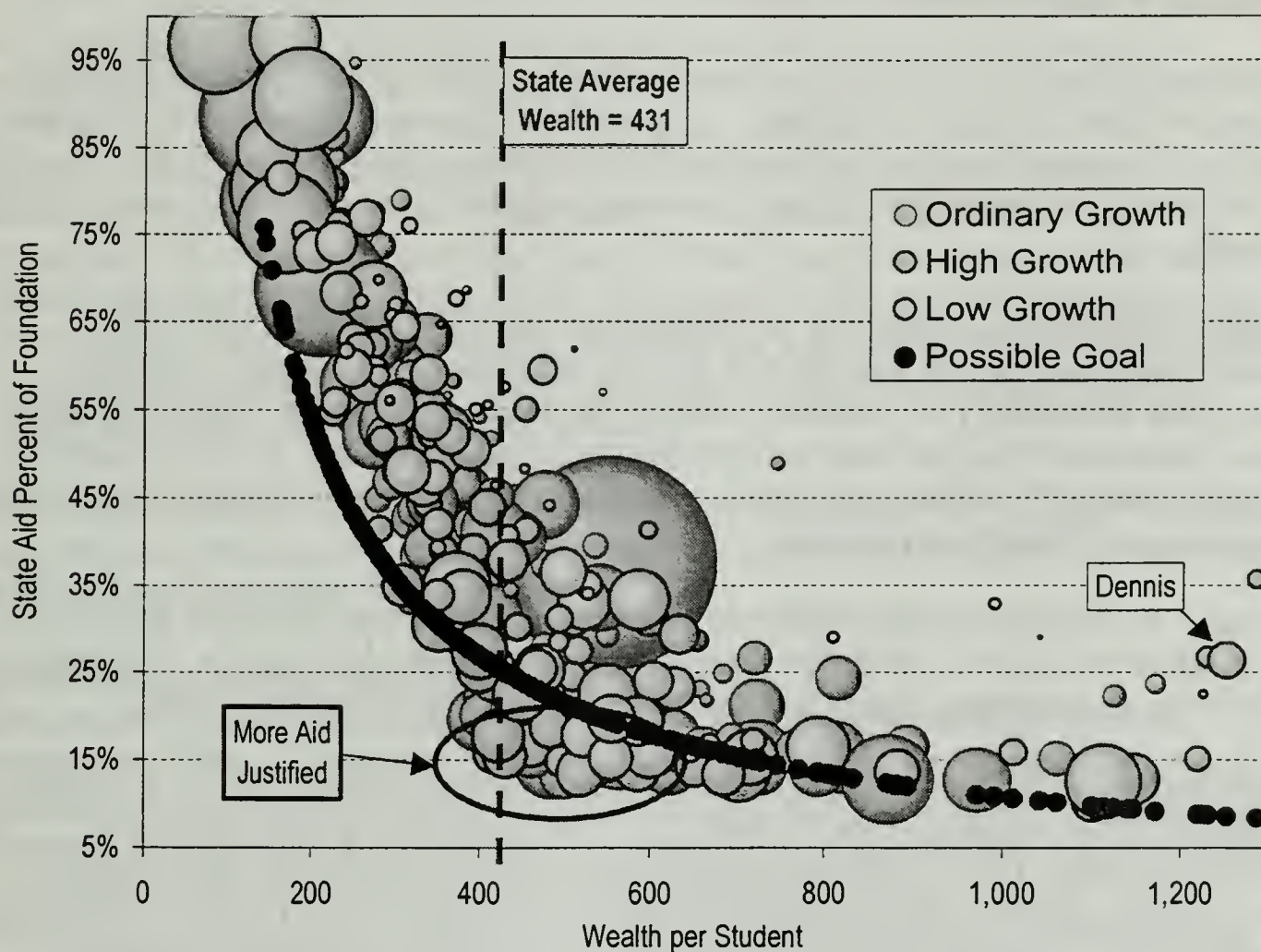
A FRESH LOOK AT AID TO WEALTHY TOWNS

If the standard of equity is the tax rate needed to reach the foundation budget, it is hard to justify *any* new aid to towns with tax rates at or below the state average (\$8 to reach foundation) as long as there are towns that need to tax themselves at \$10 or more to sustain foundation-level budgets. It is not unreasonable, however, for the state to provide some assistance to wealthy towns to help them sustain high-quality education programs. Currently there is no rational system for determining some measure of fairness amongst the wealthy towns. The aid they receive is some per-pupil increment from the aid they were getting back in 1993, regardless of their relative property wealth or of the increases (or decreases) in their foundation budgets.

Chart 14

Poverty Pct vs Wealth per Student

Massachusetts Cities and Towns, FY 2000



One approach is to assure an inverse relationship between wealth per student and the percent of its foundation budget a town receives in aid. A variant of this approach was included in the House Ways and Means proposals this spring and House 1 (the Governor's proposal) used a similar approach in determining aid increases. Chart 14 shows existing aid, expressed as a percent of foundation, plotted against per-pupil wealth

Towns that experienced high enrollment growth are shown in the chart in orange, those with low growth in green. One possible funding goal is shown in red (A town with

average per-pupil wealth gets state aid equal to 25% of its foundation budget; a town with double the state average gets 12.5%).

A quick glance at the chart shows why this approach, taken in isolation, would be totally unacceptable. The aid amounts it would prescribe for low-wealth cities and towns are well below what most of them already receive. Taken in isolation, this approach would require still higher tax rates in low-wealth cities.

But this approach shouldn't be used to determine aid to low-wealth, high-poverty cities. As recommended above, aid to these communities should continue to be based on the shortfall between their foundation budgets and some reasonable tax rate goal.

This fraction approach (aid as a fraction of foundation should vary inversely with wealth) is a reasonable way of establishing an aid goal for wealthier towns – for towns to the right of the dotted vertical line in Chart 14.

The aid goal shown in the Chart is not unreasonable – it falls generally in the middle of the amounts these wealth towns already receive. Ideally, towns currently receiving less than the curve suggests should get large catch-up increases; those receiving more should receive little or no increase until their foundation budgets “catch up” to their already high aid levels.

Consider, for example, towns with wealth between \$400,000 and \$600,000. They currently receive anywhere from 45% to 15% of their foundation budget in state aid. Such a large discrepancy for generally similar communities is hard to explain and feels unfair. Adoption of the particular curve shown here would suggest a goal of somewhere between 18 and 25%. Those below this goal, shown inside the circle on the chart, should be receiving significant aid increases.

Generally, wealthy towns with higher aid percentages have experienced low enrollment growth while most of those with lower percentages have seen rapid growth. It is hard to justify these discrepancies, particularly since there is no rational basis for them.

Massachusetts should move to base its funding for wealthier districts that do not receive foundation aid on a formula that sets aid to any given town as a percentage of its foundation budget. Low-wealth and high-poverty cities and towns that would receive more money under the current foundation budget formulation would continue to receive foundation aid. Cities and towns that already receive more aid than can be justified under either approach should be held harmless on a per-pupil basis.

Most of the major winners under this approach would be high-growth towns along Route 495. If the formula were set high enough to cover existing aid levels to most of the wealthy communities, its cost would be prohibitive, crowding out the far more important need to increase funding to high-poverty schools. On the other hand, no one would want major cuts in existing aid. It therefore makes sense to allow towns, such as Dennis (which receives aid equal to 25% of its foundation budget despite property wealth three times the state average) to grow (or shrink) their state aid as enrollment changes, but otherwise to be held harmless.

The aid target shown in Chart 14 is based on equalized property valuation, with no adjustment for personal income differences. The version of this idea advanced by the House used the governor's proposed new definition of adjusted valuation. A preliminary look at a curve similar to the one above using the "adjusted valuation" approach shows that the proposed curve falls well below current aid amounts for almost all wealthy towns. A proposed norm that suggests all (or almost all) wealthy towns are already receiving too much aid will not be acceptable as a funding norm for wealthy communities.

Any funding goal for wealthy communities based on the percentage approach must fall above current aid amounts for at least some of these towns, presumably those that have experienced rapid enrollment growth over the past few years. It may well be impossible to do this using income-adjusted valuation concepts.

There is reason to believe that the income adjustment methodology embodied in current law overstates wealth differences between communities. Consider, for example, Dedham, which has property wealth per student 46% above the state average. It also has personal income 11% above average. Most local revenues are based on property; some (like auto excises and building fees) are more closely tied to personal income. Perhaps we should think of Dedham as falling some 35% or so above the state average – somewhere between its property and income values, but closer to the property value. Instead, the adjusted in the current law double-counts and considers Dedham as being 62% wealthier than the state average. The governor's proposed numbers, which include capital gains income, show even greater discrepancies than those under current law (which use Census defined per-capita income).

The double-counting of income and wealth differentials under the "adjusted valuation" approach may well make it impossible to use it as a norm that will serve as an acceptable goal for funding wealthy communities.

Maintaining Current Spending Levels

The data for FY 2000 show that, on average, wealthy communities had increased spending relative to foundation between 1993 and 2000. Recent discussions with school superintendents from suburban communities suggest that this trend may not continue. Renewed cost pressure in such areas as special education, health insurance, and utilities along with a slowing of the economy and an increased reluctance of voters to pass Proposition 2 ½ over-rides lead many well-respected superintendents to fear that their budgets will begin falling relative to foundation and that many programmatic improvements they've made in recent years will be lost.

With total local revenues limited by Proposition 2 ½, these superintendents are looking to increased state aid to maintain current programs. In many of these communities, however, property taxes needed to get to foundation are already well below the state average and current aid amounts, as expressed as a percent of foundation, are already well above any reasonable goal – and well above what other, similarly wealthy towns receive.

Any major funding increase for these districts would therefore fly in the face of any reasonable effort to simplify the funding formula and make it fairer.

In an ideal world, the state would have foregone a major income tax cut and used its “excess” revenues to finance a major decrease in property taxes. However, the voters decided to give themselves an income tax cut. Given this cut, it is hard to see how those same voters can expect continued low increases in property taxes (as required by Proposition 2 ½) while maintaining or even increasing current school program levels.

No one can defy the laws of fiscal gravity and continue to cut taxes and increase program levels for a sustained period, particularly when the economy and the stock market are in a slow period.

However, there are three possible sources of relief:

1. The new state formula for assisting local districts in handling the costs of special education calls for the state to bear a major share of the fiscal burden of supporting high-cost students. This provision applies to all districts (not simply those with low property wealth).
2. The federal government has never met its goal of supporting 40% of the cost of special education (its share is more like 10%). There’s a major push in Congress to meet the original objective; this would mean hundreds of millions of dollars of additional funding for Massachusetts.
3. The Proposition 2 ½ levy limit is set in a way that requires continual decreases in local education spending, when defined on a per-pupil, inflation-adjusted basis, except for towns with falling enrollment. The 2 ½ limit calls for a 2 ½% increase each year. For a town with inflation at 3% and enrollment growth at 2%, this means local support will continue to fall behind spending needs – even without program increases. The current levy limit could be split into school and non-school components. The school component could grow each year at the same rate as the foundation budget; the non-school component could grow under current rules. This would not eliminate 2 ½ and would maintain the idea that large increases in programs (and therefore in spending) require voter approval, but it would mean that increases consistent with enrollment and price changes would not need special approval.

IX COMPILATION OF RECOMMENDATIONS

STANDARDS

- The Department and Board of Education must complete the History/Social Studies Framework and then leave all frameworks unchanged for five years.

- The DOE, with feedback from the field, must determine what the critical standards are in each framework and what is optional in order for the frameworks to be manageable for students and teachers.
- Revise the Common Chapters as necessary and redistribute to all school districts.

ASSESSMENT

- Allow multiple indicators of student proficiency, not one single snapshot such as the MCAS exam. SAT IIs, Advanced Placement tests, and locally developed portfolios or performance assessments approved by the DOE are possible indicators to include.
- The achievement gap between Hispanic and African-American students and white students is of major concern. DOE and districts must focus reform efforts on reducing it. Research on effective approaches and practices must also be conducted.
- One compromise to the debate over whether or not it is too soon for high stakes testing would be to withhold any decisions until the spring of 2002. 2001 MCAS scores will have been published, and high school students who did not pass will have had an opportunity for remediation and will have taken a retest. Results of this retake will be available. If these scores continue to be poor it will be time to give serious consideration to a variety of approaches while preserving the principles, the standards, and the test. It will also still be early enough to make decisions regarding the first group of students for whom high stakes apply.
- The impact of high stakes testing on drop-outs should be closely monitored by the DOE.
- Develop a 2-tiered diploma system. Students should not be admitted to publicly-funded 4-year colleges and universities unless they pass MCAS. This will keep attention focused on improved student results. Students who fail the MCAS but otherwise meet local standards for graduation should be awarded local diplomas, which will qualify them for community colleges and give them the opportunity to seek Pell grant funding. Failure to do this risks withholding federal financial help to students who may successfully use community colleges as pathways to successful futures. The Legislature should support a program for students who have failed MCAS twice similar to the dual enrollment program for higher achieving students.
- With respect to vocational education students, consideration should be given to using a combined score of the COPS proficiency test and MCAS, where each assessment counts as predetermined percentage of the total, should be used.

- Students who are unable to pass MCAS after five attempts should be assured a year of remediation at a community college, including Pell Grant eligibility, should they be motivated to continue their schooling.
- Arrange test questions in ascending level of difficulty.
- Results of the short answer portion of the tests should be returned during the same school year the test is given. Only the long answer components of the tests should be returned in the fall. This will provide districts with some early data that they can use in making decisions about student placement and/or curriculum modifications for the coming year.

ACCOUNTABILITY

- Make the following changes to the school improvement rating system:
 - Determine district improvement using multiple factors. Measures including SAT, AP exams, and other nationally normed standardized test scores, college acceptance, employment, attendance, drop-out rates, and course offerings are possible criteria to include. Process indicators, which are believed to lead to improved student achievement such as high quality professional development opportunities for teachers, certified teachers, teacher attrition and class size might also be factored in.
 - The state should adopt a test data tracking system that compares the same cohort of students in a school from year to year. As proposed in the education bills now going through Congress, DOE should track individual students and judge schools on the annual academic growth of those who stay in the school.
 - The state should hold schools responsible only for those students who were actually present for the greater part of the year in question.
 - Schools should be allowed to report newcomers separately. Schools who have experienced a boundary change should display a large asterisk.
 - Provide comparisons of district and school performance within categories that differentiate between different types of communities to provide schools and districts with useful data, and more readily identify models to which systems can relate.
 - The Legislature should include, with all program money allocated, a percentage (3% - 5%) of money for program evaluation.

- Funds must be appropriated for state reviews of district implementation of MERA, and the district accountability system developed by the DOE should be implemented as soon as possible.
- Require the DOE and DOR to coordinate their audits and reviews of school systems to minimize disruption of schools.
- Ask the DOE's Accountability and Targeted Assistance Cluster to use district data not only to make decisions about under-performing schools, but also to detect trends across the state and develop corresponding technical assistance, and to identify individual districts with specific needs.

DISTRICT CAPACITY

- DOE must work more in partnership with the field, offering support and resources while limiting its requirements of school districts so as not to overwhelm and alienate them. Districts whose students are performing well or making good progress should be able to work relatively independently of DOE if they prefer. DOE should then concentrate its attention on districts (and schools) that are having trouble raising student performance, and should develop a strong group of outside experts (primarily retired but well-respected superintendents, principals, and teachers) to work with needy districts. The DOE's effort to create such a capability was lost in the controversy over where accountability would be done.
- Arbitrators are failing to respond to the new dismissal criteria in MERA and instead continue to decide cases on the "just cause" standard. The Legislature should strengthen the legal language to ensure that arbitrators make decisions for dismissal based on the criteria of the best interest of students and on state and district teacher performance standards. If necessary, DOE should challenge key findings in court to uphold the clear intention of MERA to allow districts to dismiss teachers for poor teaching performance.
- DOE should use district professional development plans to: 1) identify local needs and provide targeted support; 2) identify common professional development needs so that districts could purchase consultant services on a more cost-effective basis; 3) identify quality programs and 4) facilitate networking of people with similar professional development interests in MA.
- An evaluation of the effectiveness of professional development should be undertaken. Although professional development alone does not create change, consideration should be given to the conditions under which professional development is most effective. Questions to consider include: what kinds of organizational support help maximize the effectiveness of professional development? Is building based training more effective in improving student achievement than district-wide training? How should

professional development programs be evaluated? Are outside or in-house experts more effective trainers?

- Districts must develop professional development plans which 1) are based on a shared vision and good data; 2) address district- and school-wide needs identified by participating teachers and administrators; and 3) allow teaching staffs to play a role in planning, designing, and implementing programs. Districts should provide opportunities for effective teachers and administrators to train and/or coach others. Schools and/or districts should promote a peer coaching or consulting teacher/administrator model where teachers and/or administrators are able to observe one another and provide data on student and teacher behaviors in a non-evaluative manner.
- The Legislature should mandate and fund a longer school year (200 days, or an additional month), to provide critically needed additional teacher time for professional development, collaborative planning, and other demands of standards-based teaching. It is critical to successful education reform. While individual districts can try to collectively bargain for necessary extra teacher time in school, it would be far more effective for the Legislature to act on this issue.
- Standards-based teaching should be encouraged by the DOE through grant moneys, technical assistance, and models of exemplary programs.
- The DOE should provide incentives to school committees to have all members participate in training programs on the role of school committee members and educational law.
- Teacher collective bargaining units must be encouraged to work cooperatively with school districts to allow school-based management to work as intended, including areas of budget control and personnel decisions. District personnel policies must also support school-based hiring and firing decisions.
- Districts should review the salaries of their principals and adjust them as needed.
- Districts must provide the principal with adequate assistance. This includes both assistants who can take over building management functions and support personnel who can help with the paperwork. The DOE must help with convincing the public that adding more administration is necessary for the smooth functioning of the schools.
- Principals should have more training opportunities and leadership institutes to help them become instructional leaders. This includes understanding what to look for in a standards-based environment, knowledge of the curriculum frameworks, and understanding the principles of systemic change. Training in consensus-building, group process, and systemic change should also be available to principals to help them successfully lead school councils.

- School councils must be strengthened through training opportunities, available discretionary funds, and multi-year school improvement plans. In order to know how best to improve their effectiveness, research on school councils should be conducted.

TEACHER CAPACITY

- Training for MINT/Bonus recipients needs to be extended during the school year, even beyond their work with mentors, to better prepare them for all aspects of the classroom and improve their prospects of success
- Legislation should be filed that would enable school districts to compete with the private sector on a more equal playing field by responding to the principles of supply and demand. Districts should be able to hire teachers at competitive rates in subject areas where there are shortages.
- DOE should avoid regulating how districts set up their mentoring and induction programs but should provide guidance and assistance upon request.
- Given the time, money, and controversy over both the MCAS exam and the current teacher tests and given the numerous initiatives already being undertaken by the DOE, it is recommended that the test of the National Board for Professional Teaching Standards continue to be used for the identification of master teachers
- School districts must be actively encouraged to create career ladders for teachers. Master teachers and others who have been recognized for their leadership skills and expertise must have time built into their schedules to visit other classrooms, model effective teaching strategies for their colleagues, and provide and play an active role in determining professional development needs for the district. These teachers could receive 11 month contracts to train teachers and develop curriculum and training materials for the district. Salaries could be differentiated on the basis of skills and performance.
- Policy makers should consider using Praxis I, Praxis II, and Praxis III. These are nationally validated teacher examinations which include an academic skills test to test academic skills (Praxis I), a graduate level test that assesses subject mastery and pedagogical skills including curriculum planning, instructional design, and assessing student learning (Praxis II) and classroom performance for beginning teachers (Praxis III).
- There should not be a state required diagnostic teacher test for teachers who have a designated percentage of students failing MCAS. The place for a diagnostic teacher test is with an administrator who has reason to question a teacher's knowledge in the field. The question of teacher competency should be determined on multiple sources of data, including observations, student work, teacher conference, and classroom assignments. A state-mandated test based solely on student achievement on one standardized test only further demoralizes the field.

FINANCE

- The foundation budget should be raised by 5 to 7% over the next 4 years as an interim increase. At that time, a future foundation budget review commission should consider whether further increases are required. This review commission should look at spending (in relation to foundation) by the more frugal districts that show reasonably high test results. Massachusetts should base its funding for wealthier districts who do not receive foundation aid on a formula that sets aid to any given town as a percentage of its foundation budget. High-poverty cities and towns that would receive more money under the current foundation budget formulation would continue to receive foundation aid. Cities and towns that already receive more aid than can be justified under either approach should be held harmless on a per-pupil basis.
- The primary purpose of state aid should be to make up the difference between the foundation budget and some reasonable local tax effort. Keep the required local tax rate lower than some ceiling (e.g., twice the state average tax rate) and higher than some reasonable floor (e.g., 80% of the state average tax rate), as proposed by the Governor and the House.
- Place a cap on the required tax effort to help towns struggling with large debt payments for school construction. This cap should apply to the sum of excess debt and required contribution. A town with large debt payments would then have its operating contribution reduced by the excess debt amount, with state aid filling in the gap.
- Eliminate overburden aid to Athol, Lawrence, and Holyoke and require the minimum tax effort required of all other cities. Use these funds to increase spending levels in high poverty districts.
- Efforts to eliminate overburden aid have been opposed because some of this aid goes to cities and towns with relatively high tax burdens. One way to deal with this problem is to put in place a floor on the local tax effort, similar to the ceiling proposed by Governor Cellucci. Any city or town with a required local tax effort less than, e.g., 60% of the state average (the average is \$8; 60% of this would be a tax effort of \$5) would be required to add to the increase normally required an additional local contribution toward school equal to 1% of its equalized or adjusted valuation. This extra amount would not be subject to the normal Proposition 2 ½ levy limit. The increases would continue until the city or town reached the tax floor. Proposition 2½ was meant to keep local officials from imposing large tax increases without public approval; it was not intended to place the burden of paying the total cost of any local school on all other citizens in Massachusetts.

APPENDIX A

RESEARCH TEAM

Maxine Minkoff Ed.D., M.P.A. is the president of Educational Transformations and the leader of the research team. For thirty years she has worked in public education as a teacher, superintendent, deputy superintendent, researcher, state administrator, college professor, and independent consultant. She was principal writer of the MA Business Alliance for Education's report on education reform entitled "Within Our Reach" and the MERRC report on "Teacher Development in Massachusetts." She holds a doctorate in urban education from Temple University and a master's in public administration from Harvard University's J.F. Kennedy School of Government.

Joseph M. Cronin, Ed.D. has held many leadership positions in education, including the presidency of Bentley College, the first Massachusetts Secretary of Educational Affairs, and State Superintendent of Education in Illinois. In addition, he has held administrative and teaching posts at Harvard University, and Boston University's educational leadership doctoral program. He has also served on the Board of Directors and as an Overseer of The Boston Plan for Excellence in Public Schools.

Edward Moscovitch, Ph.D. developed a comprehensive school finance reform plan for Massachusetts, which became the basis for school finance changes under MERA. He currently works with a coalition monitoring Massachusetts school finance issues. He has authored a major study on workforce development in Massachusetts, reviewed special education programs in Massachusetts, and consulted with states, school systems, and businesses on a variety of education issues. He has held the positions of Executive Director of the Mass. Municipal Association, and chief budget officer for Massachusetts.

Christine Mirabile, Ed.M has a background in teaching, teacher training, technology, curriculum development, and project management. She has been a special education teacher, an administrator for statewide teacher training and technology programs, and has worked as an independent training consultant for businesses and educational groups.

Jody Cale, M.B.A, M.S. has experience in education program management at colleges and state agencies, including Wheelock College, the Massachusetts Department of Education, and the Massachusetts Secretariat of Education. She has consulted with various education organizations. She contributed to MERRC's report on Teacher Development and the University of Massachusetts President's Office Strategic Plan for preK-12 collaboration.

APPENDIX B

INDICATORS OF PERFORMANCE

STANDARDS AND ASSESSMENT

Outcome Indicators

- curriculum frameworks are in place
- Common Core: is meeting the vision set forth in the legislation
- Performance standards meet the “standards of standards”
- MCAS scores show:
 - movement from failing to needs improvement; needs improvement to proficient; proficient to advanced
 - reduction of achievement gap between whites and minorities
- District performance data shows:
 - movement of districts from one category into higher category
 - fewer schools in the “under-performing” category
- Increase in high school completion rates
- Increase in percentage of students graduating with post high school education or military plans
- Improved student attendance
- More students taking and passing AP exams
- More students taking SATs
- Higher SAT scores
- Higher NAEP scores
- Higher TIMSS scores

Process Indicators

- Clearly articulated district assessment systems
- Increase in instructional time
- Decrease in class size (elementary, middle, high school)
- More schools with extended school day or school year
- Evidence of school systems’ curriculum alignment with Frameworks
- Increase in instructional use of technology
- Increase in early childhood programs
- Impact of charter schools (Commonwealth and Horace Mann)

ACCOUNTABILITY

- Impact of District Improvement plans
- Impact of summer MCAS programs
- Impact of other State initiatives to assist schools in improving student achievement
- Impact of changes in Special Education

DISTRICT CAPACITY

- Strengthening of school based management
- Impact of changes in the role of school committee
- Impact of changes in the role of principal
- Impact of changes in the role of superintendent
- Increase in parent programs and forums
- Impact of changes in school structure (e.g., block scheduling)

- Impact of school councils
- Quality of professional development
 - Evidence that it has changed practice

TEACHER CAPACITY

- Decrease in teacher attrition
- Higher satisfaction with teacher salaries
- Improvement in teacher attendance
- Increase in mentoring and induction programs
- Increase in funds allocated to professional development
- Increased time for professional development
- Clearly articulated school district professional development plans
- Higher percentage of teachers with appropriate certification
- Impact of Master Teacher Program
- Improvement of scores on Competency Test
- Impact of changes in teacher certification regulations
- Impact of 12-64 State initiative
- Performance standards for teachers and administrators:
 - District performance expectations are aligned with state performance standards

FINANCE

- Funding adequacy
 - How is adequacy defined?
 - Is it better than before?
- Equity
 - There is a closing of the spending gap
 - There is taxpayer equity
- Stability
- Money is being spent by districts in a manner consistent with MERA
- Application of professional development
- Professional development meets national staff development standards

APPENDIX C

SCHOOLS VISITED

Teachers, parents, department heads, curriculum coordinators, principals, and superintendents from the following schools were consulted in the process of preparing this report. No endorsement of the report's findings or conclusions is implied by their participation.

Elementary Schools

Baldwinville, Narraganset
Canterbury Street School, Worcester*
Centre School, Everett
EJ Harrington, Lynn
Federal Furnace School, Plymouth
German Gerena, Springfield
Greenhalge, Lowell
Harriet Healy, Fall River
J. Hennessey, Lawrence
Lynn Woods, Lynn
Mary Lyon, Boston
Nathan Hale, Boston
Ralph Butler, Avon
Sunderland Elem., Sunderland
Thompson, Arlington
Varnum School, Lowell
Warren Prescott, Boston

Middle Schools

Bartlett Jr. Sr. HS, Webster
Cohannet Middle School, Taunton
East Somerville Community School, Somerville
Greenfield Middle, Greenfield
Palmer High, Palmer
Timilty Middle, Boston*

High Schools

BMC Durfee High, Fall River
Brockton High, Brockton
Chelsea High, Chelsea
Nashoba Valley Technical High School, Westford
Nauset Regional, Nauset

*These schools were visited while accompanying a DOE review team.

APPENDIX D

QUESTIONS FOR SITE VISITS

1. What impact have the curriculum frameworks had on your district's/school's curriculum and instruction in terms of what is taught, when it is taught, and how it is taught?
2. What data does the district/school collect on student achievement?
 - a. How are the data results used? (e.g., to revise curriculum? to create interventions for individual students? to report to school committee?)
3. Please describe the impact MCAS has had on your district/school?
4. What interventions has your district/school put in place to help students pass MCAS?
5. How do you identify and assist students who are falling behind in reading and/or mathematics?
6. How is your school integrating the use of technology into the teaching and learning process? How do you know if it has had a positive impact on student achievement?
7. Please describe your professional development
 - a. How do you assess the quality of your professional development program?
 - b. To what extent do teachers work together on improving teaching or developing curriculum?
 - c. How has professional development changed since MERA?
 - d. How could your professional development program improve?
8. What impact has MERA had on school-based management
9. What impact has MERA had on the role of the superintendent?
10. What impact has MERA had on the role of the principal?
11. What impact has MERA had on the role of the school committee?
12. How has parent involvement in school decision making and programs at the building level changed since MERA?
13. Has there been any change in the school structure (e.g., block scheduling) as a result of MERA?
14. Have you experienced changes in your teaching staff? Please explain.
 - a. How do you recruit new teachers?
 - b. When you have vacancies, how many applicants do you typically get?
 - c. What do you look for?

- d. How would you rate the quality of these applicants, and how has this changed over time?
15. Do you have an induction and/or mentor program for new teachers? If so, please describe it.
16. What impact, if any, have changes in teacher certification and recertification had on your teaching staff?
17. How have you ensured that your teacher and administrator performance standards are aligned with the State's guidelines? May I have a copy of these standards?
18. Please describe your supervision and evaluation system.
 - a. What steps are taken to work with teachers who need to improve? (Teachers, Principals, Superintendents)
19. What, if any, State initiatives has the school/district taken advantage of in your efforts to improve student achievement (e.g., participation in summer institutes; recipients of grants for MCAS summer programs, etc.)?
 - a. Please describe how successful they have been for your district/school.
 - b. What evidence do you have?
20. What steps do you take to deal with students whose behavior is disruptive of classes?
21. What steps have you taken to include special needs students within the regular classroom?
 - a. How have you responded to recent changes in state regulations?
22. If you have been involved in a DOE district evaluation, please describe the process
 - a. How accurate do you feel your strengths and weaknesses as a district were reflected in the evaluation?
 - b. In what ways did you find the evaluation helpful?
 - c. How effective has DOE's assistance been during this process?
23. To what degree is the school's organizational climate a collaborative culture?
 - a. In what ways do faculty members exhibit collegial behavior (e.g., joint lesson planning, regular discussion of teaching and learning, observing one another's classes)?
 - b. How often do teachers meet with and/or call parents to discuss their children's progress?
 - c. To what degree do faculty participate together in curriculum planning and in professional development activities?
24. What is the best thing that has happened in your school/district over the last three years? The worst thing?

25. If you could make two changes in your school, what would they be?
26. What seems to account for your school's/district's improvement (or what barriers do you face that stand in the way of improvement?)
27. What went well over the last few years that could be a lesson for others? What went poorly over the last few years that could be a lesson for others?
28. If your school had significantly more funding, what would you want to see it used for?

APPENDIX E

ORGANIZATIONS CONSULTED

Staff, officers and/or volunteers from the following organizations were consulted in the process of preparing this report. No endorsement of the report's findings or conclusions is implied by their participation.

Boston College

EDCO Collaborative

Massachusetts Association of School Committees

Massachusetts Association of School Business Officers

Massachusetts Association of Administrators of Special Education

Massachusetts Association of Elementary School Principals

Massachusetts Association of School Superintendents

Massachusetts Association for Supervision and Curriculum Development

Massachusetts Board of Education

Massachusetts Department of Education (numerous departments and individuals)

Massachusetts Executive Office of Education

Massachusetts Federation of Teachers

Massachusetts Legislature, Joint Committee on Education, the Arts and Humanities

Massachusetts Secondary School Administrators Association

Massachusetts Teachers Association

APPENDIX F

SELECTED BIBLIOGRAPHY

- Abelmann, C. & Elmore, R. *When Accountability Knocks, Will Anyone Answer?* Consortium for Policy Research in Education, CPRE Research Report Series, RR-42. 1999. Internet: <http://www.gse.upenn.edu/cpre/docs/resrch/a-1a.html>
- Better Standards, Better Schools. Achieve, Inc. 1999 Annual Report. www.achieve.org
- Betts, J. R., and R. M. Costrell. "Incentives and Equity under Standards-Based Reform" In Diane Ravitch (ed.) *Brookings Papers on Education Policy 2001*. Washington, D.C. Brookings Institution. Forthcoming.
- Clarke, M., W. Haney and G. Madaus, High Stakes Testing and High School Completion. NBETPP Statements 1(3). Chestnut Hill: Boston College, Center for the Study of Testing. 2000.
- "Conference Report." Conference on Massachusetts Education Reform. March 9, 2000. Gordon Public Policy Center. Brandeis University. Waltham: May 2000
- Desimone, L. (2000) *Making Comprehensive School Reform Work*. "No Excuses: Lessons from 21 High-Performing, High Poverty Schools." The Heritage Foundation. 2000. Internet: <http://www.noexcuses.org/lessons/>
- Education Week*. "Quality Counts 2001: A Better Balance: Standards, Tests and the Tools to Succeed," (January 11, 2001), 20:16, 79
- The BHI FaxSheet*, "The Best and Worst Performing School Districts in Massachusetts." Beacon Hill Institute for Public Policy Research at Suffolk University. February 8, 2001. Internet: <http://www.beaconhill.org/>
- Fowler, R. Clarke "An Analysis of Recruitment, Preparation, Attrition and Placement of the Massachusetts Signing Bonus Teachers." February 2001. Internet: http://www.massteacher.org/html/Public_area/public_pics/fowler.pdf
- Gaudet, R *Effective School Districts in Massachusetts: A Study of Student Performance on the 1999 MCAS Assessments. The Second Annual Report*. University of Massachusetts Donahue Institute. 2000.
- Haney, W. *The Myth of the Texas Miracle in Education*. Education Policy Analysis Archives, Vol. 8, No. 4. (2000) Internet: <http://epaa.asu.edu/epaa/v8n41/>.
- Herman, R. et al. *An Educators' Guide to Schoolwide Reform*. Arlington, VA. Educational Research Service. 1999. Internet: <http://navigation.helper.realnames.com/framer/1/113/default.asp?realname=Educational+Research+Service&url=http%3A%2F%2Fwww%2Eers%2Eorg&frameid=1&providerid=113&uid=17106535>

- Hope for Urban Education: A Study of Nine High-Performing, High-Poverty, Urban Elementary Schools.* Charles A. Dana Center, University of Texas at Austin. (Washington, DC: U. S. Department of Education, Planning and Evaluation Service). 1999. Internet: <http://www.ed.gov/pubs/urbanhope/> 2000
- Kellaghan, T., Madaus, G., and Raczek, A. *The Use of External Examinations to Improve Motivation.* Washington, DC: American Educational Research Association. 1996.
- Massell, Diane *The District Role in Building Capacity: Four Strategies.* Consortium for Policy Research in Education, Policy Briefs, RB-32. (September 2000).
- Massell, Diane. *State Strategies for Building Local Capacity: Addressing the Needs of Standards-Based Reform.* Consortium for Policy Research in Education. 1998. Internet: <http://www.gse.upenn.edu/cpre/frames/pubs.html>
- The MCAS: Expanding Opportunities to All Students, A Report to Governor Argeo Paul Cellucci. Presented by Lieutenant Governor Jane Swift. January 4, 2001. <http://www.state.ma.us/gov/Education-learning-full.pdf>
- Meier, Deborah. "Will Standards Save Public Education?" In Joshua Cohen and Joel Rogers, (Eds) Beacon Press, Boston., 2000 p. 29.
- Meier, Deborah. *The Power of their Ideas: Lessons for America from a Small School in Harlem.* Boston: Beacon Press, 1995.
- Ravitch, Diane and Joseph Viteriti. *City Schools.* The Johns Hopkins University Press. Baltimore. 2000.
- Reeves, Cynthia. "Lessons from Kentucky." *Gaining Ground Newsletter.* Council for Chief State School Officers Resource Center on Educational Equity. January 2001.
- "Survey of Principals. " Massachusetts Elementary School Principals' Association. Winter/Spring 1998. Internet: <http://www.mespa.org/>
- Swaine, D.G. *Will Accountability Standards Improve Public Schools?* Federal Reserve Bank of Boston. New England Fiscal Facts, No. 23. Part 4 of a four-part series on school finance reform. Winter 1999-2000. Internet: www.bos.frb.org/economic/neff/neff23/neff23.htm#top
- Uriarte, M. and L. Chavez. *Latino Students and the Massachusetts Public Schools.* The Mauricio Gastón Institute for Latino Community Development and Public Policy at the University of Massachusetts Boston. March 2000.
- Wehlage, G.G. and R. Rutter. "Dropping Out: How Much Do Schools Contribute to the Problem?" *Teachers College Record* 87 (3). (Spring 1986): 374-392.

WEBSITES USED:

Consortium for Policy Research in Education
<http://www.gse.upenn.edu/cpre/>

Council of Chief State School Officers
<http://www.ccsso.org/index.html>

Education Commission of the States
<http://www.ecs.org/>

Fordham Foundation
<http://www.edexcellence.net/>

MA Department of Education
<http://www.doe.mass.edu/>

Massachusetts Federation of Teachers
<http://www.mfteducator.org/>

Massachusetts Teachers Association
http://www.massteacher.org/html/Public_area/

National Board of Professional Teaching Standards
<http://www.nbpts.org/>

National Education Association
<http://www.nea.org/publiced/>

National Partnership for Excellence and Accountability in Teaching:
<http://www.ed.gov/offices/OERI/npeat.html>

APPENDIX G

LIST OF ABBREVIATIONS USED

AP	Advanced Placement (exam)
CARE	Coalition for Authentic Reform in Education
CPRE	Consortium for Policy Research in Education
DOE	Department of Education
DOR	Department of Revenue
MASC	Massachusetts Association of School Committees
MASSP	Massachusetts Association of Secondary School Principals
MCAS	Massachusetts Comprehensive Assessment System
MEAP	Massachusetts Educational Assessment Program
MERA	Massachusetts Education Reform Act
MERRC	Massachusetts Education Reform Review Commission
MESPA	Massachusetts Elementary School Principals Association
MFT	Massachusetts Federation of Teachers
MTA	Massachusetts Teachers Association
NAEP	National Assessment of Educational Progress
NEASC	New England Association of Schools and Colleges
PALMS	Partnership Advancing the Learning of Mathematics and Science
PTO	Parent Teacher Organization
SAT	Scholastic Aptitude Test
TAAS	Texas Assessment of Academic Skills
TIMSS	Third International Mathematics and Science Study

